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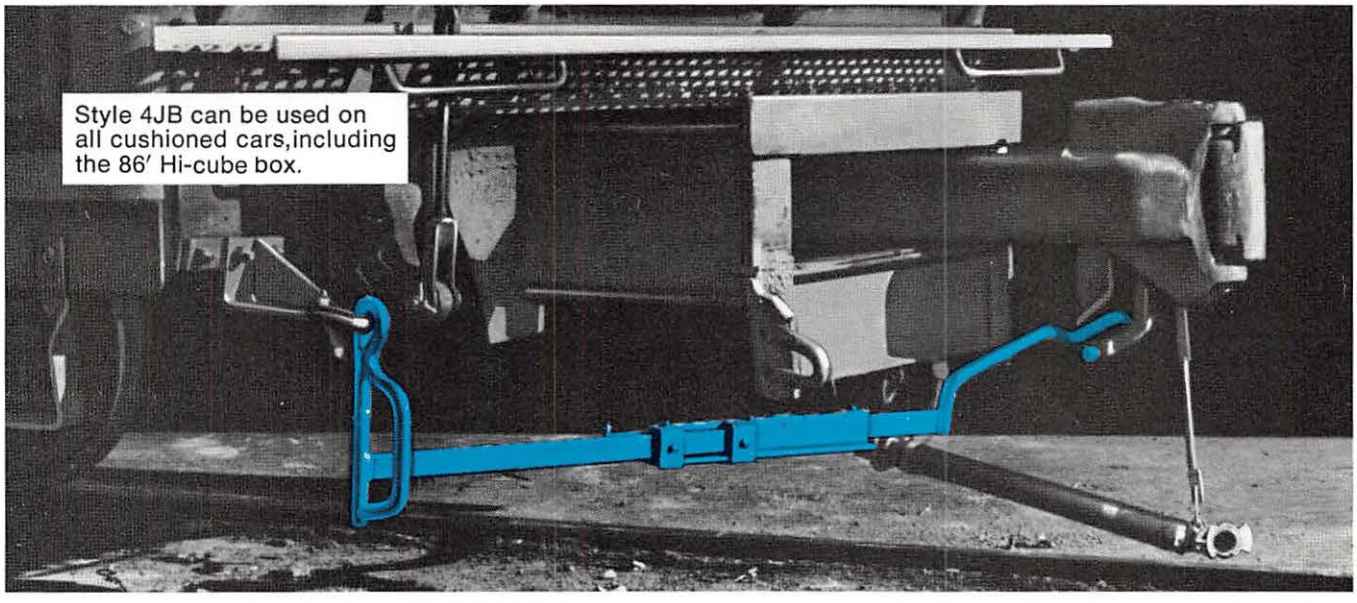

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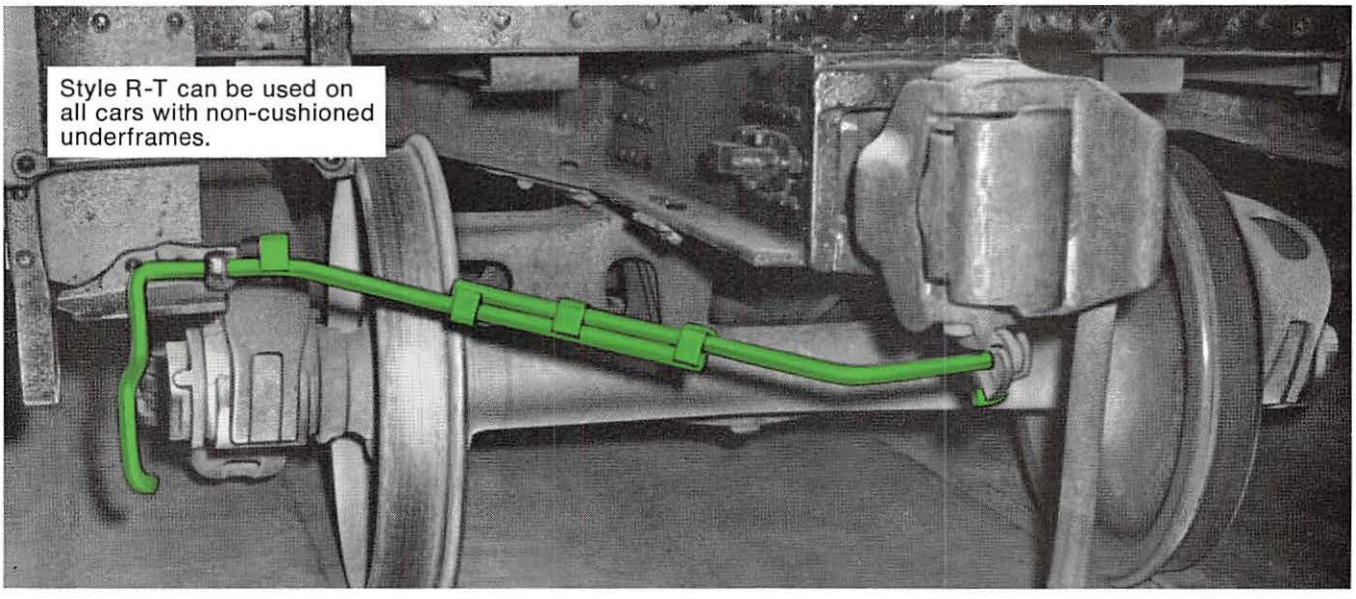

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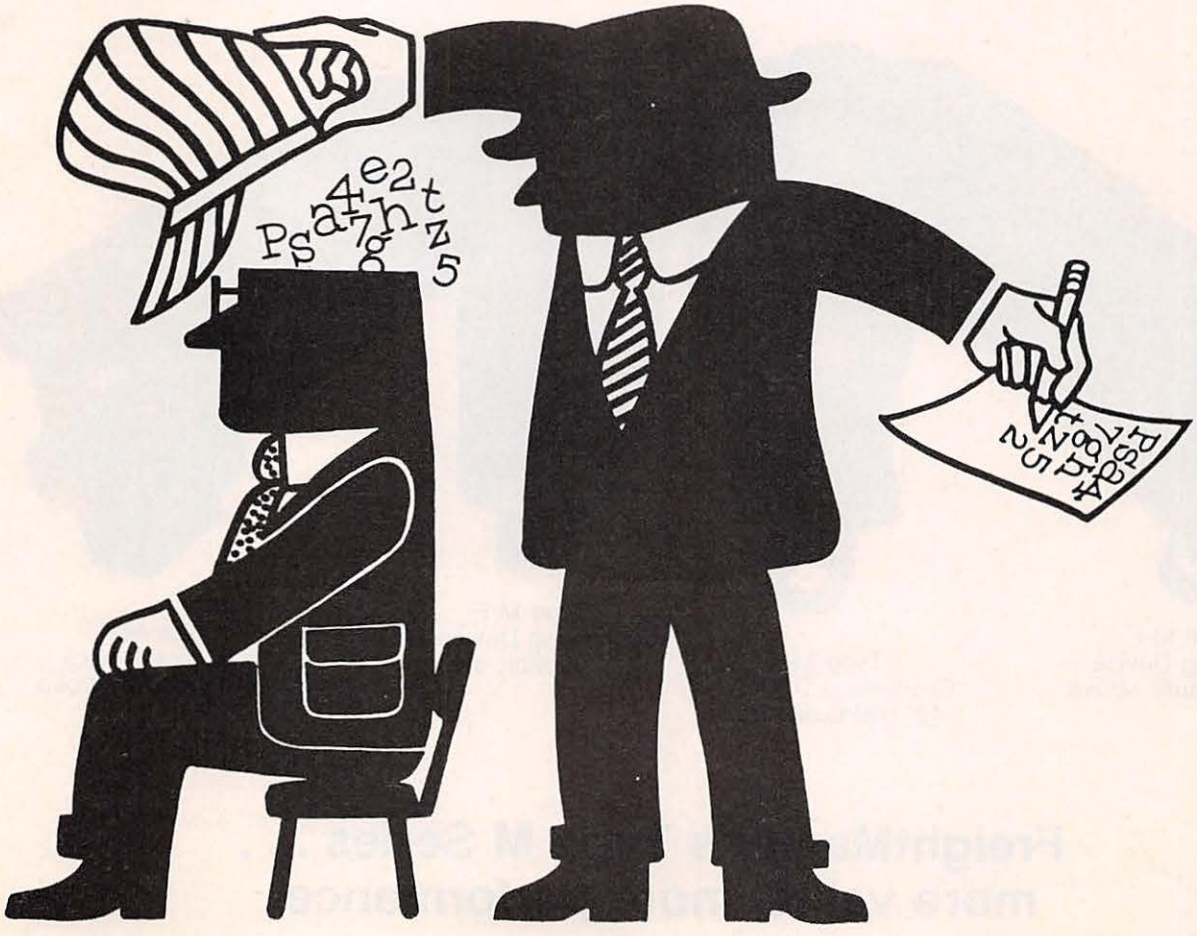

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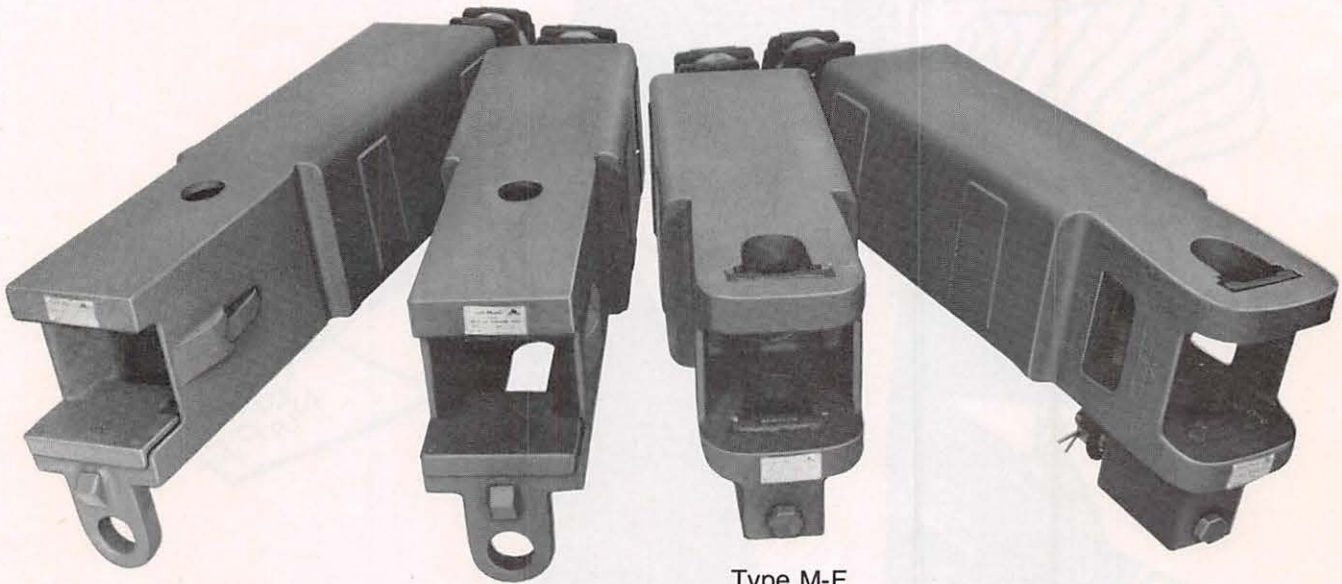

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Inside

LUTHER S. MILLER

WHAT'S NEW AT BARSTOW

When you've seen one hump yard, you've seen them all, right? Wrong, says Railway Age Special Writer William D. Middleton, who recently traveled to Barstow, Calif., in the heart of the Mojave Desert, to inspect a new Santa Fe yard that is about half way towards completion. What's new about Barstow? For one thing, Barstow will have not only a hump, but a minihump, or more precisely a rehump—which means that "a car being classified at Barstow may go over the main hump and then over the minihump once, twice, three times, depending upon the blocking desired."

Why Santa Fe planners opted for this operational innovation—and what it could mean to both the railroad and its customers in terms of efficiency and speed—is described in the cover story that begins on p. 16.

THE ICC FIDDLES AS MENK BURNS

What kind of year has it been so far for railroads? Pretty much as expected—and that's pretty dismal:

—The year's first six weeks saw carloadings drop an average of 12.6% from 1974 levels; ton-miles were down by 9.9%. (During the "poor" fourth quarter of 1974, which included a five-week coal strike, the drop in ton-miles was 6.3%.) After the six-week averages were figured, reports for the seventh week came in—and they indicated a worsening of the downward spiral: loadings for that week were down 16.1%; ton-miles declined by 14.1%.

Railroaders can take some comfort from the fact that, also as expected, they are no worse off than their competitors. Intercity motor-carrier tonnage in this year's first five weeks averaged 21.5% less than a year ago. Thus, despite the absolute decline in rail traffic, the rail share of available tonnage appears to be rising.

—But other vital statistics give railroad men little cause for cheer. Railroad employment, which in 1974 rose for the first time in many years, is shrinking fast. Last November, employment stood at 531,075, up 10,000 from the year before due mostly to a 9.7% increase in M/W jobs and a 5.7% gain in the maintenance of equipment category. But employment dropped by 11,400 in December; and preliminary reports indicate another 21,000 workers were furloughed or laid off in January—the largest monthly drop during a non-strike period in 15 years. New and larger layofs may be in the offing.

There was also some unexpected news early this year: the ICC turned down a 7% rate hike requested by all except two of the 73 Class I's.

As rate bureaus, in mid-February, pondered a new course of action, AAR President Stephen Ailes observed: "The twin problems of inflation and recession have seriously affected most of the stronger carriers but, for those marginal railroads in the East, South and the West, the situation is far more precarious. Until national business conditions improve, the railroads cannot expect a complete recovery to 1974 levels. Hopefully, the problems faced by this industry will be understood by the ICC when they consider whatever rate proposals are advanced by the industry."

Burlington Northern Chairman and Chief Executive Louis W. Menk was rather more outspoken and explicit in his advice to the ICC. He saw the ICC's turndown of the 7% as evidence of "erratic, irrational" regulation, and warned that the Commission could force the railroads into cannibalistic financial practices (see p. 10).

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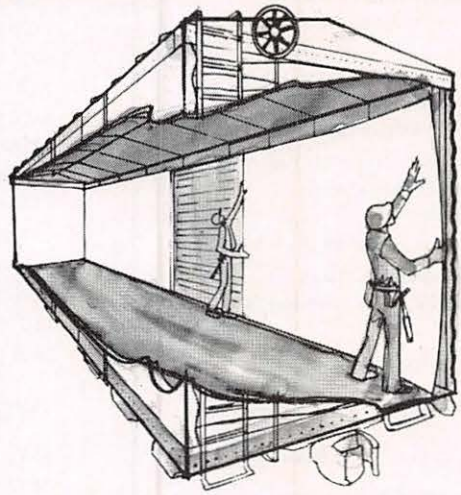

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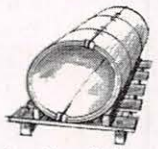

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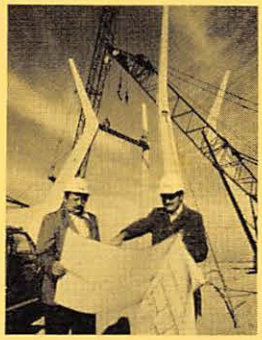

Architect Richard Hale and assistant Glen Manda are shown at Barstow Yard site in photograph by Santa Fe System Photographer Don Erb.

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Short and Significant

COMMUTER CARS ORDERED AT $728,000

The Southeastern Pennsylvania Transportation Authority, in announcing a $51-million order for the construction by General Electric of 70 multiple-unit Silver IV commuter cars, left the woes of double-digit inflation for "between the lines" reading. The average price per car is about $728,000, compared with $410,000 for the 144 Silverliners presently being delivered by GE to SEPTA under a 1971 contract. The $318,000-per-car price increase forced SEPTA to revise downward its original plans to purchase 100 rail commuter cars this year (RA, Jan. 13, p. 29). GE was not only the low bidder—GE was the only bidder. A SEPTA spokesman confirmed that another builder had requested an extension on bids, but the request was turned by officials of SEPTA and the Urban Mass Transportation Administration, which is helping to finance the cars. The new cars will replace 50-year-old cars on Reading's seven commuter lines in the southeastern Pennsylvania region. The Silverliner cars in both the 1971 and 1975 contracts are delivered with a five-year labor and material warranty for all components except consumable items such as brake shoes.

VALUE LINE SEES GOOD TIMES FOR CARBUILDERS

No industry is recession-proof, but the freight car-building industry may come as close as any. That is the gist of an analysis which appears in the Value Line Investment Survey's latest examination of the state of the railway equipment industry. Says Value Line: "Postulating only 45,000 railcar orders in 1975 (the lowest such level since 1963), as well as 15,000 order cancellations (perhaps an overly high assumption), the railcar manufacturers would still enter 1976 with an order backlog for 46,000 railcars. Since the economy is likely to be improving by next year, a 46,000-car backlog would almost certainly be enough to maintain a satisfactory profit level for the industry in 1976. Looking further ahead, we think railcar orders will average at least 70,000 to 75,000 a year. Almost 60,000 old freight cars are being retired each year. With overall fuel supplies expected to remain relatively tight in the U.S. in the years immediately ahead, the need to expand the cargo-hauling capacity of the nation's railroads is increasingly being recognized as an important national priority. We doubt that the government will allow railroad profits to sink to the level where there would be a sustained dry spell for orders".

ROLLER BEARING "DUMPING" CHARGE UPHELD

The United States Tariff Commission has ruled that the U.S. roller bearing industry has been hurt by the sale in this country of Japanese tapered roller bearings at less than fair value. The next step, according to the Timken Co. (which had filed the "dumping" complaint) will be for the U.S. Treasury Department to determine the amount of duty to be assessed on all imports of tapered roller bearings from Japan, retroactive to early June 1974. Said Herbert E. Markley, president of Timken: "It has been the policy of the Timken Company to favor and promote world-wide trade on a free and equal basis, and it is our belief that we can effectively compete with all manufacturers of tapered roller bearings that conduct their operations on such a basis. Accordingly, we believe that such unfair trade practices must be eliminated."

B&M STILL PLANS TO GO IT ALONE

Reporting that 1974 was its best year, financially, since 1967, the Boston & Maine has reaffirmed its intention to reorganize on an income basis rather than join those bankrupt roads that will form the Conrail system. B&M cut its loss to $3,408,440 in 1974, down from $7,751,101 in 1973. At the same time, say the trustees, B&M was able to make the most extensive improvements to its property in 15 years.

BIGGER BUDGET, MORE STAFF FOR ICC

President Ford is proposing a fiscal 1976 budget of $49,970,000 and a personnel ceiling of 2,182 for the Interstate Commerce Commission—an increase of $4.9 million and 40 jobs over this year's allocation. The ICC says the additional money and manpower are needed to speed up processing of the Commission's case load and to help the agency do its part toward reorganization of Northeast railroads.

"CHAMP" DAVIS DIES AT 95

Champion McDowell Davis, who retired from the Atlantic Coast Line in 1957 after 64 years of service—the last 15 as president—died Jan. 28 at Wilmington, N.C. He was 95. "Champ" Davis started out as a messenger boy for the Wilmington & Weldon on March 1, 1893, at the age of 14; he became president of the parent Coast Line in 1942. He was especially well known for maintaining ACL's lines in top condition, and shortly before he retired he was able to announce that authorized maximum speed for passenger trains between Richmond, Va., and Jacksonville, Fla., had been brought up to 100 mph, and for freight trains, 65 mph. He observed: "Such improvements in service have been made possible only through the expenditure of large sums in modernizing and improving the physical properties of Coast Line." ACL was subsequently merged with Seaboard Air Line into the Seaboard Coast Line.

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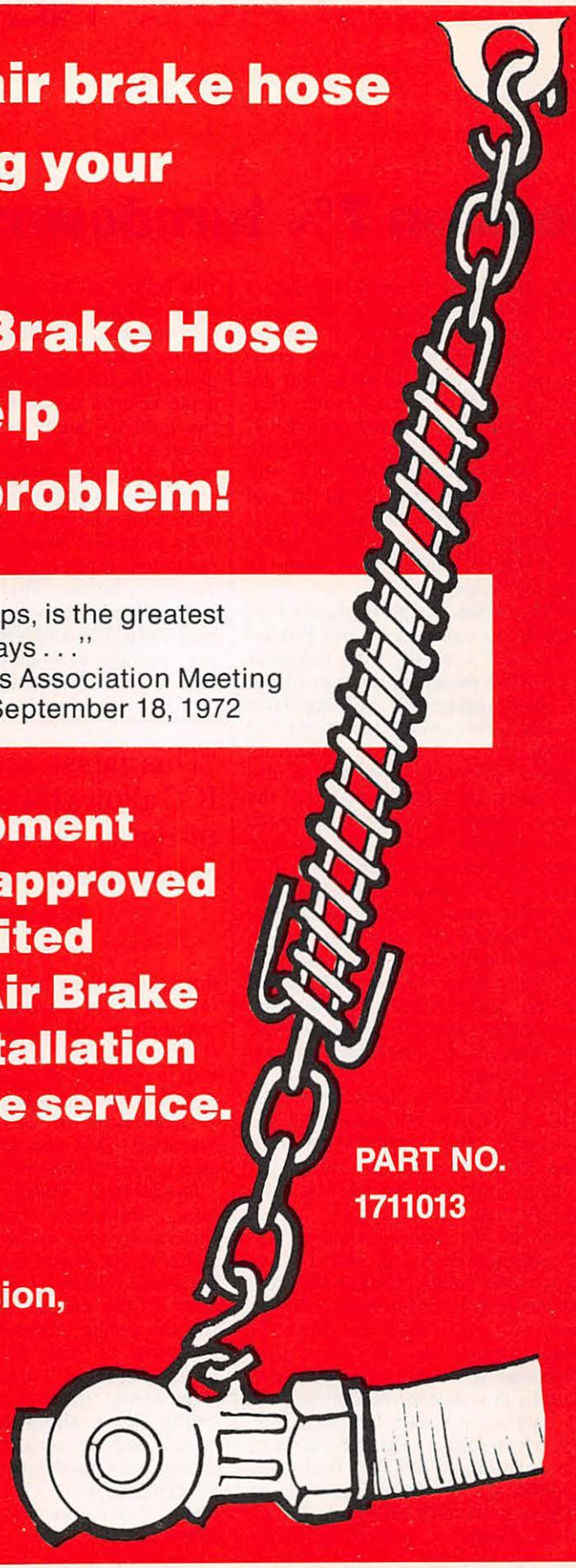

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Circle 7 on Reader Service Card

Menk on 7% turndown: "Erratic, irrational"

Certain critics of Federal regulatory agencies keep charging that the agencies are in the hip-pocket of the industries they regulate. But any critic who thinks that way had better not get himself invited to dinner with Burlington Northern Chairman and Chief Executive Louis W. Menk—a man with definite thoughts about the ICC and what ought to be done about it, and no hesitancy whatever in talking about such things publicly. And Menk's thoughts are 180 degrees away from the "hip-pocket" theory.

BN's top officer suggests that "of all the regulatory agencies at the Federal level, the ICC operates with the least regard for the economic realities of our times." He's urging that nothing deter the Senate Government Operations and Commerce Committees from conducting a proposed "thorough investigation into the ICC and other agencies that cost the American public billions of dollars each year." He suggests further that the time has come to consider scrapping the ICC in favor of a Federal Railroad Commission that would function along the lines of CAB and FMC: Such an agency, Menk says, "would be an advocate of efficient rail transportation. . .It would assure the continuation of free competition among railroads while guarding against monopolistic practices, collusion and other abuses."

As for the industry itself—now that the ICC, as of Jan. 30, suspended for seven months the proposed 7% rate increase—Menk recommends that railroads build their case again, this time for not less than a 15% boost.

Meanwhile, his denunciation of ICC action will go down as one of the strongest ever made. Unless the ICC reconsiders or is forced to reconsider, he declares, Jan. 30 "may go down in economic history as the day that the renaissance of the railroads was smashed by government regulation that is not only erratic and irrational but also clearly punitive. By the decision, the Commissioners signaled that they are returning to their practice of delaying essential rate increases, a practice that dissipates forever a major share of the intended benefits of such increases. That same brand of ICC wisdom brought the railroads in the East to their knees in less than 20 years after World War II. And the rest of us will follow unless some common sense soon begins to shine through the deliberations of these regulators. . . Ruling against a 7% rate increase has placed the ICC in the position of having acted against the best interests of both the industry and the public it is supposed to serve. Further, the ICC, to my mind, has again demonstrated an incompatible hostility toward the very industry for which it is responsible."

As proposed, Menk notes, the Senate regulatory study carries a report-date of July 1, 1976: "That deadline date automatically poses the question of how long even BN and other strong roads can continue without the level of earnings required for viability. . .As I see it, this latest action by the ICC allows the railroads no recourse except financial cannibalism. That begins with substantial layoffs of employees. The next step is reducing or eliminating essential capital improvements. Finally you have to get down to bare bones in any operations that you don't cut out completely—maintenance, for example."

> "This latest action by the ICC allows the railroads no recourse except financial cannibalism. . ."
>
> **BN Chairman Louis W. Menk**

As matters stand, BN's chairman says, Congress really has two choices—to give railroads a chance to make it on their own, or to put a "national railroad bureaucracy on the back of the taxpayers." But shippers and the public in general should be on the side of the railroads "because nationalization would create a bureaucratic disaster so vast that it would dwarf all others. It took the Postal Service almost 200 years to achieve an annual deficit of $2 billion. A government-run rail system could achieve that in its first year of operation."

Menk spread his message out to an audience of shippers in the Midwest, and he made his reason clear: "I'm here in search of friends and allies and people who think straight—because today the railroads need every freind and ally they have and America certainly needs people with the clarity of thinking to detect another bureaucratic bungle."

Actually, he reflected, " 'bungle' is too mild a word because it does not fully describe" the action by the Commission in the 7% rate case—which was "a mistake that promises to speed the elimination of the railroads from this country's system of democratic capitalism and make them yet another monstrous burden on the backs of the taxpayers."

Congress and the voters, he declared, "should weigh the costs of having not just six but 67 bankrupt and deteriorating railroads on their hands—and the threat of that situation coming to pass is very real. I am here to tell you that if an effective plan to drive the railroads into bankruptcy and government ownership were sought by the opponents of democratic capitalism, the schemers would need to look no farther than the halls of the Interstate Commerce Commission."

Those regulators, BN's chairman said, "have failed to comprehend one of the greatest crises of modern-day America—the one that envelops the very industry of which they are the regulators, and a crisis sired by government intervention, born of government mis-regulation and made worse by inflation."

Menk cited a comment by Federal Trade Commission Chairman Lewis A. Engman: "The government in its zeal to control the nation's transportation system has laid down a roadbed of regulations which our common carriers have ridden to the brink of bankruptcy and, in some cases, beyond." He called for shipper, union, media and public support for the railroad position: "It is not only a just one. Allowing the railroads to achieve financial self-sufficiency is the only way we're ever going to be able to keep the entire industry off the Federal dole."

Winding up, Menk promised no let-up: "I'm not here today to warn of imminent disaster, but rather to promise an all-out fight—personally and by Burlington Northern—to preserve the railroads against the ruinous intervention of government in our business."

REA Express files for bankruptcy

REA Express—formerly the Railway Express Agency—went into Federal District Court in New York Feb. 18 to seek protection from its creditors under Chapter XI of the Bankruptcy Act. A spokesman said the company, with assets of $44 million and liabilities amounting to $55 million, needed time to restructure its operations and to work out a plan for paying off its debts. He emphasized that normal operations would continue.

Tom Kole, chairman and chief executive officer of the company, blamed the recession for undermining REA's "carefully planned recovery program." He noted that the company, which he said was losing close to $50 million a year when its present management and a group of outside investors acquired it from the railroads six years ago, had achieved an operating profit of $2.8 million 1974 on revenues of $276 million. But he said REA's cash position has become "critical" in the last two months. Partially to blame, he said, was a 39% increase in labor costs in the last 10 months.

The reorganization is expected to result in a reduction of the company's surface express operations. Air express operations will not be affected.

Iran purchases French turbotrains

ANF-Industrie, the French manufacturer which this month delivered a second pair of RTG turbine trains to Amtrak, now has an order for four nearly identical trains, and an option for 22 more, from the Iranian State Railways. All of the trains are destined for service on the 576-mile Teheran-Meshed route. They will make the run from the capital to Meshed, a Holy City, in approximately 10 hours, replacing service now provided by two daily trains taking nearly 17 hours.

ANF-Industrie, in cooperation with local contractors, will erect a maintenance facility in Iran that will be nearly a duplicate of Amtrak's shop at Brighton Park, Ill.

The first two trains have been pulled out of the production line for French National Railways in order that the Meshed service can be inaugurated on the Iranian New Year, March 21. The trains will be delivered on their own wheels, following the route of the Orient Express and crossing the Bosphorus and Lake Van on car ferries.

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CONRAIL EMERGES

Drafting of the U.S. Railway Association's preliminary systems plan to restore viable rail service to the nation's northeast and midwest regions has been going on for months in a city that has more leaks than a collander. As a result, enough details of the plan have filtered out to give a good indication of what USRA will deliver to Congress February 26.

It appears now that the association will recommend that the railroads of the northeast and midwest be reorganized into three competing systems, two of them operating as parts of existing profitable railroads. Core of the system would be the existing Penn Central—as well as the bulk of the other bankrupt northeast lines—bound together in ConRail I. (ConRail is Washington shorthand for the Consolidated Rail Corporation, a government-created but privately owned corporation authorized in the Regional Rail Reorganization Act of 1973 to operate now-bankrupt northeast and midwest railroads; the "I" of ConRail I comes from a designation assigned in USRA's June 30, 1974, annual report.)

Competition to the ConRail I system would be provided by Norfolk & Western acquisition of the Erie Lackawanna line between Buffalo and New York City, and by greater involvement of the Chessie System in the northeast. Specifically, the USRA plan suggests Chessie acquisition of trackage rights or ownership of the Reading and the Central of New Jersey, with freight service between New York and Washington being diverted onto those lines and the Baltimore & Ohio lines—which are already Chessie-owned—from the existing Penn Central lines. The Penn Central lines would be used primarily for high-speed rail passenger service.

While the ConRail I plan is very similar to the ConRail I option outlined in the USRA annual report, and even answers some of the anticompetitive issues raised in the report, it can hardly be accepted as the blueprint for future rail service. In the first place, there is no indication that NW or the Chessie System are eager to play the parts assigned them in the reorganization. In the second place, the financing of ConRail I regardless of the Chessie-NW involvement is still a critical problem (and one addressed by Pennsylvania Gov. Milton Shapp, who held a press conference to boost his rail trust fund plan the day the USRA plan started to leak).

AND—THE PROBLEM OF TRACK REPAIR

Finally, there is the question of the Consolidated Facilities Corporation. There is a growing body of opinion here that no company could operate a viable rail system in the northeast-midwest if it had to pay the bills for track repair. Consequently, USRA has been considering establishment of a facilities corporation that would overhaul the rail roadbeds, own the tracks, and recoup its rail repair expenses by leasing the upgraded trackage to ConRail and privately-owned roads.

Since the facilities corporation proposal is not official, there has been no official response from Congress, which has to authorize it, or the public, which has to pay for it. In view of the current economic situation, any such proposal for massive government expenditures will be hotly debated and perhaps even carefully analyzed. Even before the idea was officially floated, it had run into trouble in the high councils of the DOT, the fear there being that once the nose of the camel was in the railroad tent, the rest of the beast would soon follow.

How rails fare in the new budget

Mass transit does well in the fiscal year 1976 budget of the Department of Transportation, and rail safety and research and development also get a boost, although overall dollar expenses for the Federal Railroad Administration are dropping.

That's a quick summary of which way the wind is blowing as DOT outlines its plans for spending $11.3 billion in 1976, some $1.36 billion more than it spent last year.

The new budget gives the Urban Mass Transit Administration an increase of $279 million, to its record high of $1.72 billion. Major portion of the increase goes for formula grants, which provide funds for localities to use at their discretion on mass transit operating assistance or capital improvements.

FRA's budget dropped to $138 million, down $43 million from last year, but most of the drop results from a reduction in funds requested for programs related to the Regional Rail Reorganization Act of 1973.

The $138 million requested for FRA includes $45 million for grants to states and other bodies to continue service on low density rail lines that would not be included in the ConRail system. In addition, the Railroad Research and Development program gets an increase of $19 million, giving it $67 million to find near-term solutions to problems facing the railroad industry. The railroad safety standard and enforcement program budget is up $4 million to $16 million, with the extra funds being used to beef up the safety inspection program.

For Amtrak, DOT proposed $460 million, an increase of $182 million over this year's budget. Some $72 million of the increase is aimed at absorbing Amtrak's larger operating deficit and $110 million will go for capital improvements. DOT also announced a change in Amtrak's financing method, with 1976 monies and funds for subsequent years coming from grants rather than government-guaranteed loans, the present method of paying for capital improvements.

While DOT's spending requests for railroads and mass transit programs—which are not all rail-related—are up, the amount going to railroads remains a small part of the department's overall budget. The highway program alone, for example, is targeted at $5.4 billion, although one landmark provision of the DOT budget proposal would divert a portion of the highway user tax now going to the Highway Trust Fund into the general treasury, where it would be available for other uses.

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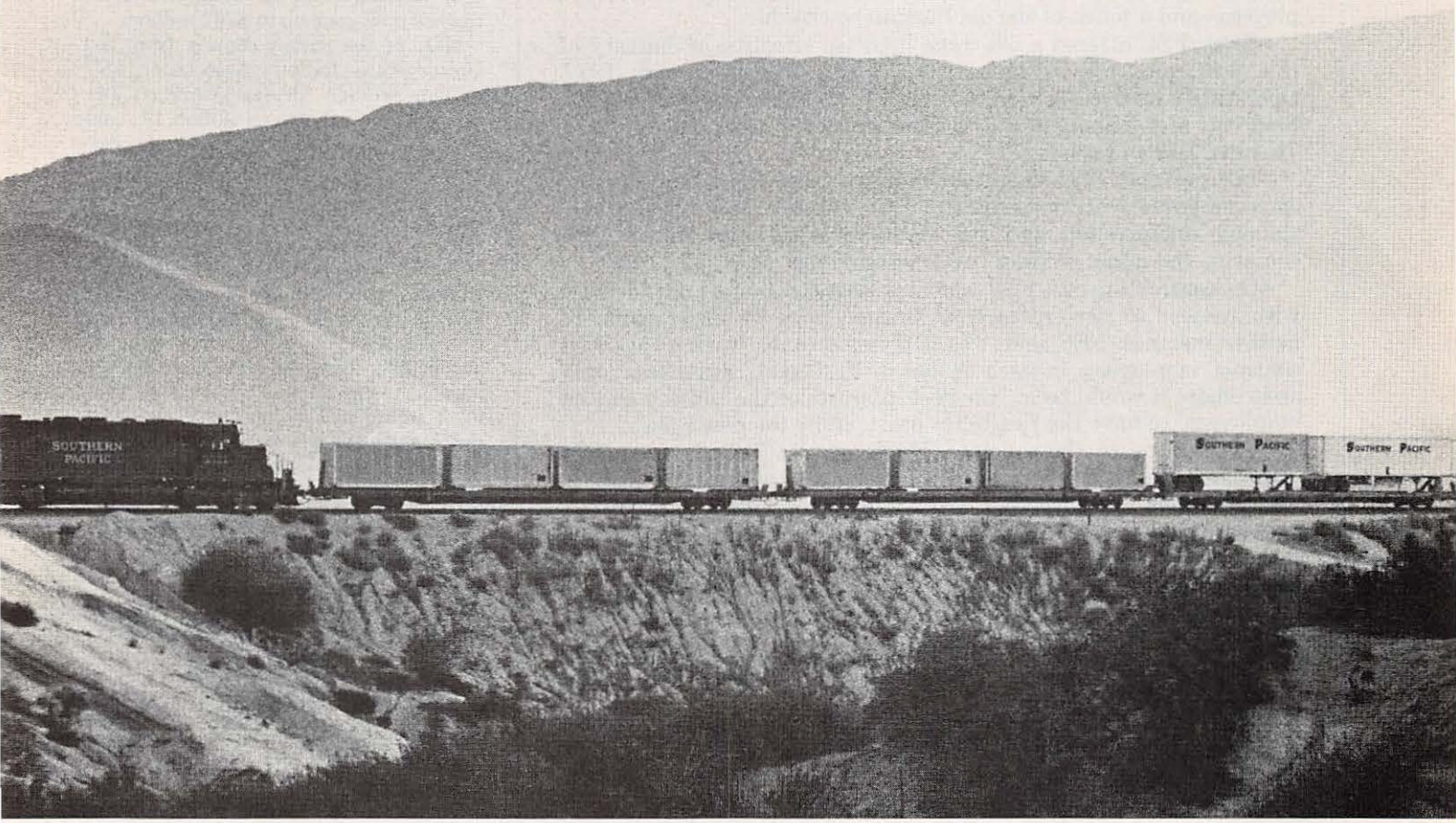

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Lines on Labor

GUS WELTY

THAT "DIFFERENT" FEC. . .

Florida East Coast—which may someday become known as the "do-it-yourself" railroad—is at it again. It would take a book to explain everything that's happened at FEC in management/labor affairs over the past decade-plus; suffice it to say that things are just a little different on FEC, and that may account for the interesting notices the road has served on its non-operating unions.

. . .AND ITS PROPOSAL: YOU GAIN, WE GAIN

FEC, in brief, proposed changes in wages, seniority rules, work rules. Its notices had something for FEC, something for the employees—and a touch of the old Puritan work-ethic.

—First, FEC offered a 5% wage increase effective in January of this year, plus 6% in January 1976 and 6% in January 1977. Operating employees got a 6% boost last October, but for them the road was also looking ahead to October increases of 5% this year, 7% next year and 6% in '77.

—For non-ops, FEC suggested seniority-rule changes to provide each employee with one seniority date, "dating from his last continuous employment, and the right to select jobs based upon seniority and qualifications," with certain cross-over restrictions.

—On contracting-out, FEC went for liberalization; it did likewise with respect to performance of "scope" work by supervisors. In neither instance, FEC said, was it trying to take work away from contract employees; in each instance, FEC said, situations could arise where it would be in "the best interests of the railway and its employees" to have the flexibility provided by the new rules.

—In addition to these points, FEC's notices looked toward the day when "employees will not be barred from performing work in classifications in which they are not assigned [again with certain cross-over restrictions]. This not only would remove artificial work barriers now imposed by current work rules and enable the railway to operate more efficiently, it would also permit employees to gain greater skills in work areas now beyond their sphere of activity." Of course, if an employee worked in a higher-rated category than the one to which he was normally assigned, he would get the higher rate for the day or tour of duty.

—Then came the Puritan work-ethic. Effective with the January 1975 wage boost, FEC proposed to increase non-op pay by another 5% "for those employees who report for duty on time each advertised work day during each pay period and remain on duty for the entire work day." This, FEC said, would "reward those employees who are regular and prompt in reporting for work and provide an incentive for those employees who are not." (For operating employees, a similar 4% "contingent" increase was proposed for next October.)

IN FEC'S PLAN, FOOD FOR THOUGHT?

Predictably, FEC's unions are not happy with the proposed rules changes. Maybe not so predictably, they don't care much for the reward/incentive/contingent plan either: What FEC regards as a bonus, they view as a penalty levied against the person with a "good excuse" for being late or not showing up at all. At this point, nobody can tell how it will all end up; negotiations are in progress and, as of mid-February, in only one case had mediation been invoked. But looking farther down the line, does what FEC proposes make sense? In many ways, it does—as more than a few management people and maybe even a few union people might agree.

RI gets less than half a loaf

What do you do when you go after a $100-million loan for much-needed railroad rehabilitation and come away with less than 10% of what you asked for? You swallow hard, keep hoping for the rest of the money—and try to put the $9.1 million you're getting where it will do the most good. In Rock Island's case, this means rehabilitating a bit more than 190 miles of mainline track, repairing about 700 freight cars and installing a few more hotbox detectors. And what are you looking at, way down the line? Still, you're looking at a 10-year rehabilitation on which the price tag has now gone up to $762 million.

Most of the money coming from the United States Railway Association, $5.7 million, will go for trackwork on 141 miles of main between Joliet, Ill., and Davenport, Iowa, and on 51.4 miles between Wichita and Herington, Kan. Both stretches of track will get new ties and ballast and resurfacing; new 132-pound rail is scheduled as a part of the Joliet/Davenport rehabilitation. Meanwhile, company shops at three points will be repairing covered hopper cars, flat cars and gondolas, at an estimated cost of $2 million. And, putting the $9.1 million to work will also mean that Rock Island will be one of a very few railroads in today's economy which will be putting people to work: About 75 shop employees will be recalled and more than 200 M/W employees will be hired to implement the programs.

Rock Island calls these modest projects "the starting portions of the. . . rebuilding program which, when completed, will place the railroad in a position to commence repayment of loans incurred." Work is scheduled to begin as soon as the funds are made available by USRA and the financing is approved by the Interstate Commerce Commission.

Earlier, before USRA announced its decision on the $100-million application, RI President and Chief Executive Officer John W. Ingram had emphasized on several occasions the road's desperate need for the full amount, going so far as to indicate that without the money the Rock might well have to go into bankruptcy. USRA, however, said the $9.1 million would permit management to take hold of operations and "assert itself in turning around the company." USRA also said it would reconsider the rest of the Rock's request "later." And it shifted some of the attention back to Congress, noting that surface transportation legislation which might be passed could have "greater funding potential" for railroads such as RI.

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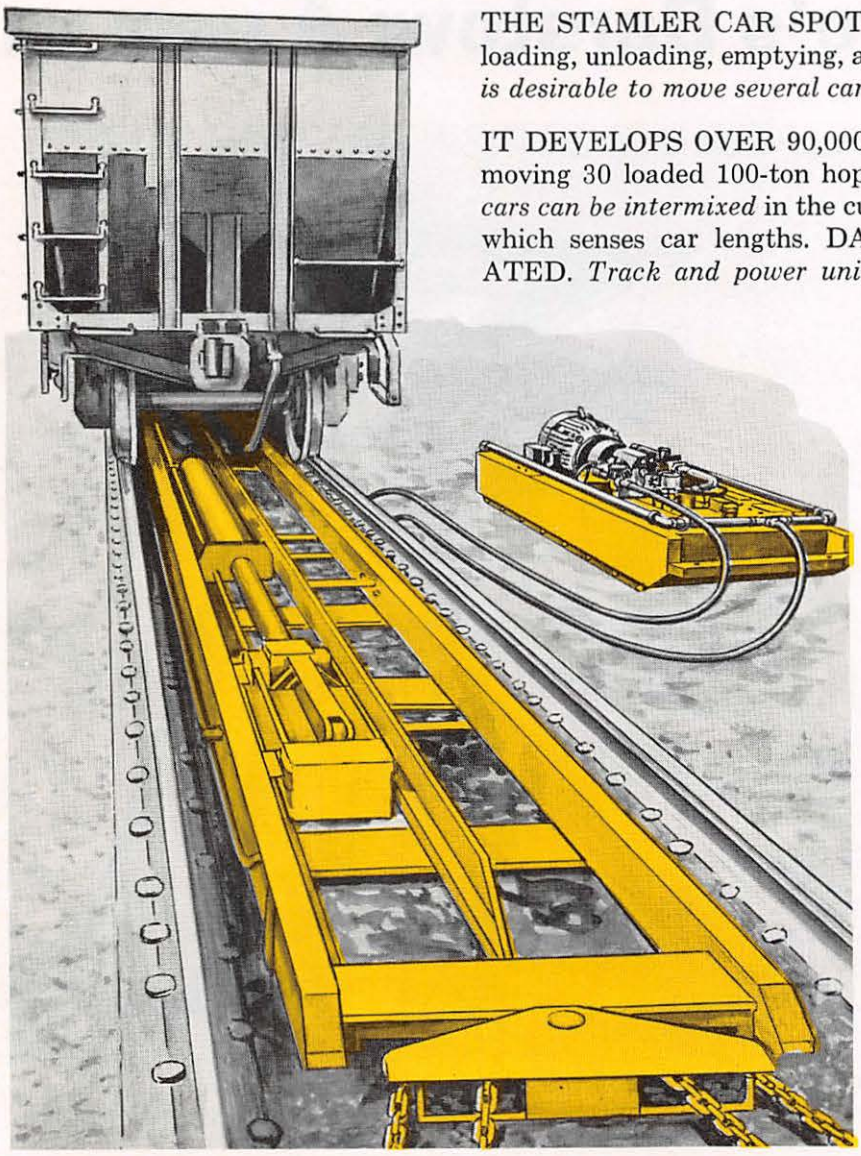

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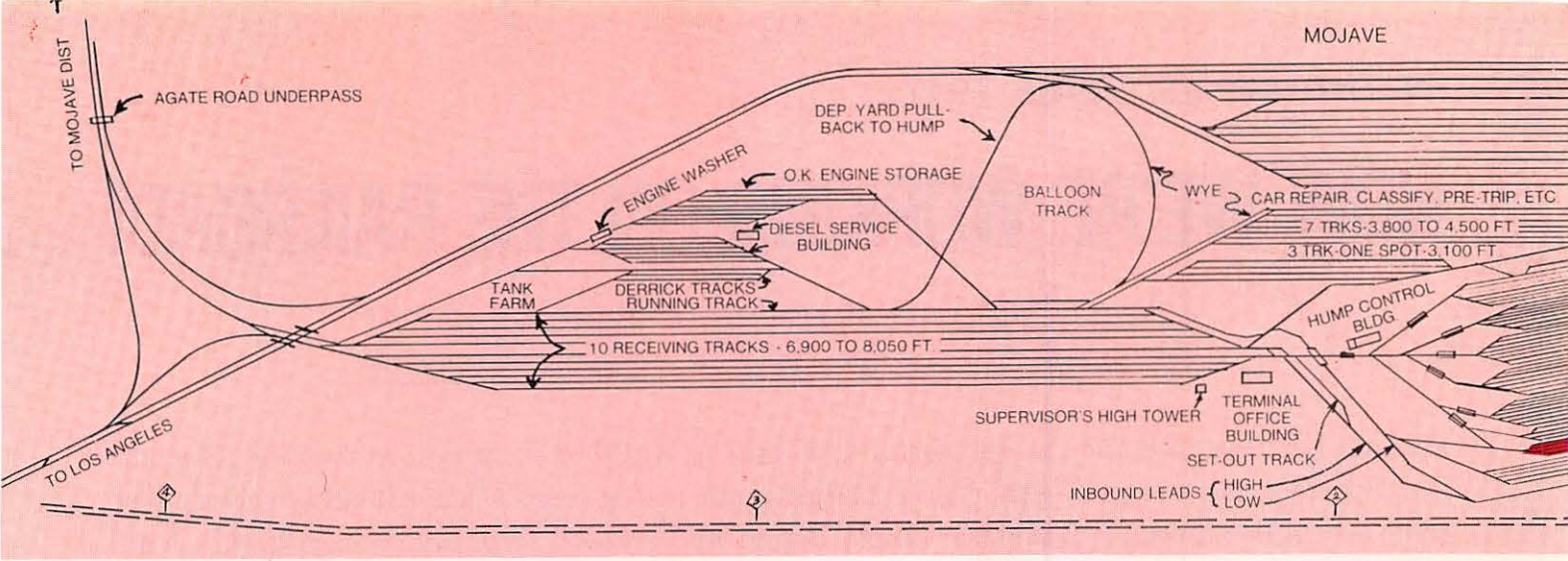


Santa Fe's Barstow: A new yard

By WILLIAM D. MIDDLETON
Railway Age Special Writer

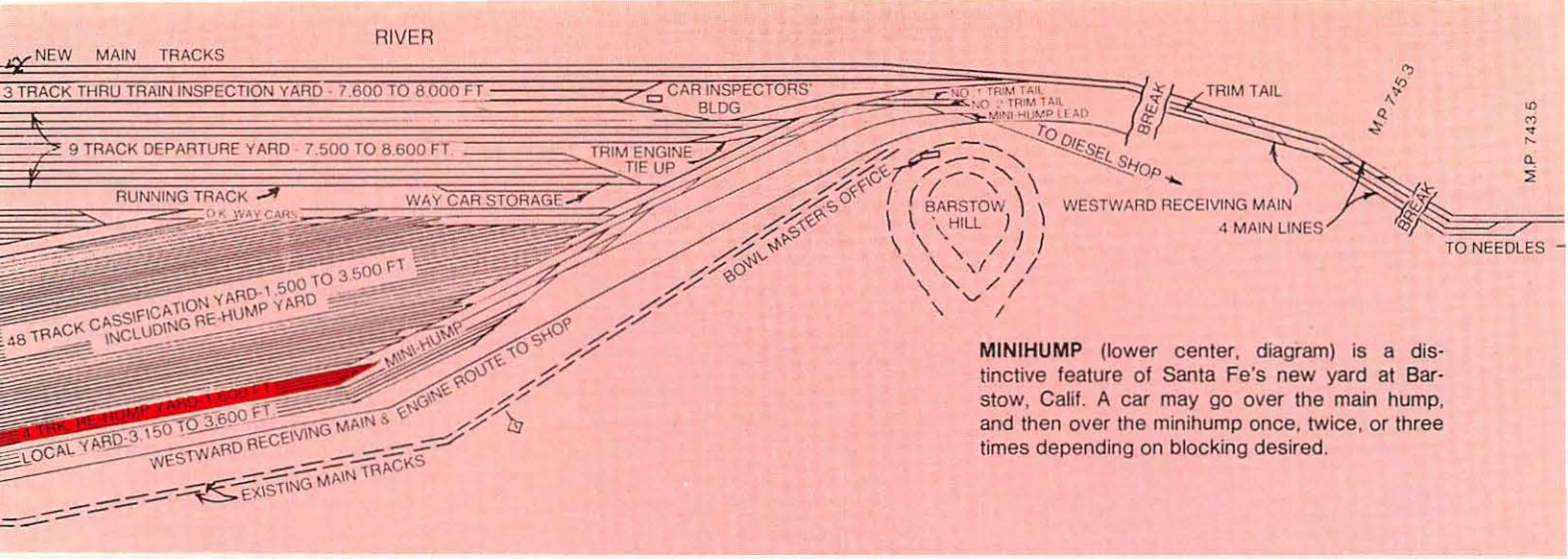
Every new classification yard is just a bit "better" than the new yard most recently completed: That's the way technology moves ahead. But at Barstow, Calif., about a year from now, Santa Fe will be completing a new yard that won't just be "better": It's also going to be different, in construction and in operating philosophy and technique.

How? Barstow will have its hump—but it will also have a minihump. Why? Because Santa Fe operating people don't necessarily subscribe to the fewer-is-better theory as regards handling and rehandling of cars; in some cases, they believe—and Barstow is one such case—more is better, and thus a car being classified at Barstow may go over the main hump and then over the minihump once, twice, three times, depending upon the blocking desired.

This departure from the norm is a reflection of Santa Fe's conviction that the only valid reason for building a hump yard is to reduce work done at other points, with resulting service improvement and over-all cost reduction. Over the years, it has been a reasonable conviction: Santa Fe has fewer hump yards (until Barstow, just three, at Chicago, Kansas City and Pueblo) than roads with much less mileage and much less territory to cover; yet it has been able to get the job done. Barstow is a project undertaken only after long study of both operating patterns and traffic projections; and the "go" decision was made only after consideration of sites farther east on the transcontinental mainline and only after an assessment of costs and benefits involved in upgrading and improving existing flat yards on the west end. (Some roads have leaned toward increasing use of satellite yards as one means of attacking a terminal congestion problem while avoiding a heavy capital expenditure; Santa Fe concluded that by the time it got through with flat-yard improvement, it might well have spent as much as Barstow's programmed $38 million—but while it might have eased operating problems, it would not have solved them.)

CONTROL TOWER construction at Barstow hump yard. Legs were pre-cast from concrete on the site and will have a bush-hammered finish. there will be a central elevator in the structure.

So, Barstow—where, for more than a year, railroad and contractor work forces have been reshaping the desert landscape for this regional yard with system wide impact. They're building a yard with the capability to block routinely for as many as 75 stations in a



MINIHUMP (lower center, diagram) is a distinctive feature of Santa Fe's new yard at Barstow, Calif. A car may go over the main hump, and then over the minihump once, twice, or three times depending on blocking desired.

with new ideas

PROJECT ENGINEER Hubert Hall (left) confers with Construction Engineer H. Burris as beams are put in place for Mojave River bridge.

BARSTOW LOOKS THIS WAY one year before completion. Planners had to overcome unusual problems created by desert geography.

48-track bowl. They're also overcoming design and construction problems created by the harsh geography and climate of the site, in the Mojave Desert.

● **Broad benefits.** Barstow will classify both eastbound and westbound traffic and will prove especially helpful in reducing the classification load on existing Coast Lines flat yards as far north as San Francisco and as far south as San Diego. When Barstow is in full operation, Santa Fe will be able to forward to Barstow almost all eastbound traffic from these outlying yards as unclassified random-dispatch, moving as tonnage becomes available for a full train.

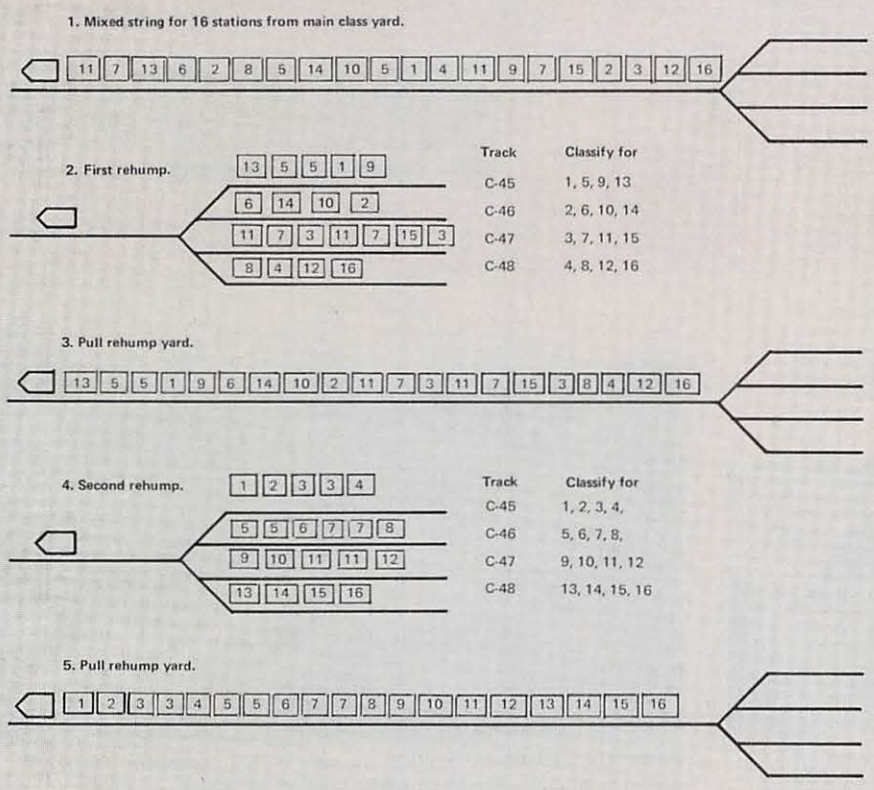
Initially, as many as 2,000 cars may be classified daily; ultimate design capacity during peak traffic periods is about 2,700 cars a day.

Traffic, through and around Barstow, is something else. The yard is at the junction of Santa Fe's transcontinental line and the two principal arms of the Coast Lines, north through the San Joaquin Valley to the San Francisco Bay area and south to Los Angeles and San Diego. Santa Fe movements on the three lines typically average 80 to 90 trains daily (with Union Pacific, which operates on trackage rights between Riverside and Daggett, Calif., running about 14 trains a day through Barstow). Except for TOFC/COFC and other run-through-type trains, now also averaging about 14 daily, all eastbound traffic will be classified at Barstow, with blocks for 32 principal stations as far east as east Texas and Kansas City. Westbound, traffic will be blocked for more than 40 principal Coast Lines points, San Francisco to San Diego; in addition, local traffic will be blocked in station order for points short of San Bernardino. Actually, it's expected that Barstow's main job will be eastbound classification; as Vice President-Operations Larry Cena and Assistant Vice President Donald G. Ruegg point out, the new yard will handle a lot of westbound classification on traffic originating at Texas or intermediate-transcontinental points, but the main classification on transcontinental traffic will continue to be handled at Argentine Yard, Kansas City.

And who's going to benefit from Barstow? Santa Fe—and ATSF customers. When the yard goes into service, the road will be able to retire parts of existing yards at Barstow and San Bernardino. Car-delays can be minimized at flat yards all over the Coast Lines. By the best current estimate, Barstow operations will result in an annual savings of about 58,000 car-days. Perishable traffic, always a problem and a special one for a road handling as much perishable as Santa Fe, will move on more precise schedules with less opportunity for delay. And even though the average car may spend more time at Barstow than it does now, it should be spending less total time in the over-all movement because Barstow will do more quickly what is now being done less quickly at one or two or more other points.

● **Mainline relocations.** As part of the Barstow project, both the Los Angeles and the San Joaquin Valley mainlines are being relocated. The double-track Barstow/Los Angeles line is being relocated for about 4.5 miles on an alignment skirting the north side of the yard; the single-track Mojave District line to the San Joaquin Valley is being abandoned for a distance of about four miles and a new north/south link will cross the Mojave River on a new bridge to bring Mojave District traffic into the west end of the new yard.

Yard design, the arrangement of entrance and departure tracks, will permit as many as six simultaneous movements on or off mainlines without disrupting humping operations. Connecting tracks between the relocated mainlines will



Minihump: An operational innovation

What is a minihump? What is a rehump yard? Essentially, it's a place where you do more with more—and more with less: You classify cars more times for more ultimate benefit—and you do it with a smaller fixed facility.

Santa Fe came onto the minihump/rehump idea after looking at operations at Argentine Yard, where it seemed as though a lot of tracks were there in the main class yard and the blocks being built in them were pretty small. So, when the time came to design Barstow Yard, engineering and operating people came up with the rehump theory: If you were to put cars for a lot of small blocks into a track or two from the main hump and then pull and rehump, you could do wonders in putting blocks and cars in station-order without needing a lot of tracks Yard diagram (P. 17) shows how it will work, with the minihump at the opposite end of the yard from the main hump. The sketch (above) shows the arithmetic progression in which a random cut, pulled from a single class track, can be put in station-order in two classifications—assuming four tracks (as Santa Fe will have in the rehump yard) and 16 blocks.

● **Same size, more capability.** Of course, this adds to car-handling at Barstow. But—and it's a big "but"—Barstow will be able to make a lot more blocks in a yard no larger than Argentine. By doing this, Barstow will cut the workload on less-efficient flat yards. By doing this, Santa Fe will be able to improve reliability, cut over-all transit time and improve car utilization—even if cars are handled several times at the new yard and even if cars spend more time at Barstow than they do now in the existing flat yard. Actually, the rehump activity consists of cars in each block and provides more service to the rest of the railroad because of the ability to make smaller blocks.

There are a lot of technological improvements that have been made in classification yards in the past 10, 15, 20 years. But this is an operational innovation—and it is one which, if it works as Santa Fe hopes it will, could be incorporated in almost any hump yard, at almost anyplace where such a requirement exists. It's going to be an interesting innovation to watch.

permit runthrough operations, bypassing the yard, in any direction; and a three-track, 450-car-capacity throughtrain inspection yard adjacent to the relocated mainline on the north side of the yard will permit runthroughs to stop for crew change and inspection without having to enter the main yard itself.

As the diagram shows, Barstow is being laid out with an inline receiving and classification yard arrangement and a pullback departure yard parallel to the class yard. The 10-track receiving yard, at the west end, will have room for 1,400 (50-foot) cars.

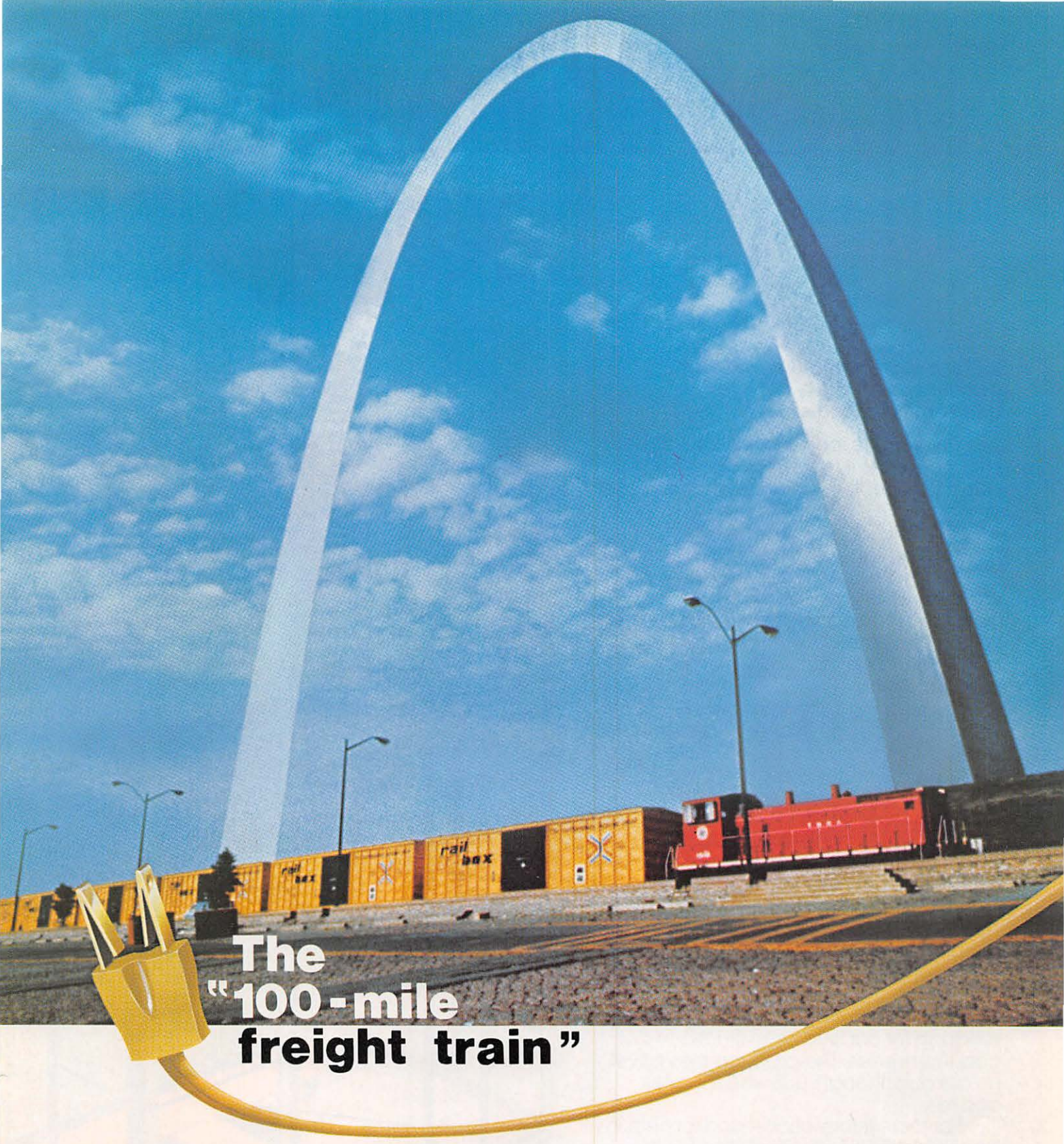
Entrance tracks from the Los Angeles and San Joaquin Valley lines pass under the relocated Barstow/Los Angeles mainline; the entrance track from the East gives access to the south side of the receiving yard or, via a track passing under the hump track, the north side, and so traffic may move into the yard from any direction without interruption of humping operations.

The nine-track, 1,300-car-capacity departure yard will also have direct access to mainline tracks; south of the class yard, adjacent to the rehump yard, Santa Fe will place a five-track local yard.

Classification will be from west to east into the 48-track class yard at a sustained rate of five cars per minute over a single hump track. Single-car cuts will pass over a weigh-in-motion scale just below the hump crest; a single master retarder and six group retarders will control speed and car separation. A maximum hump grade of 6% through the master retarder will allow for a speed of 11 mph maximum leaving the group retarders. Tangent-point retarders on each class track will control speed into the bowl so that coupling speed will be no more than 4-to-5-mph. Master and group retarders are from WABCO, while the tangent-point and inert retarders are from Abex.

● **Computer-controlled operation.** Humping operations will be under the control of a hump process-control computer in the humpmaster's office. This will be an off-the-shelf unit, a Nova minicomputer from Data General. The computer will identify cars against a consist file, automatically route them to the proper class track, control coupling speeds and maintain an inventory of the number, weight and length of cars in each track. Santa Fe is doing the programming for the system and is designing the interface control system equipment which will link the minicomputer with switch and retarder controls and tie the system into the road's over-all information system.

The tie-in with the Topeka-based



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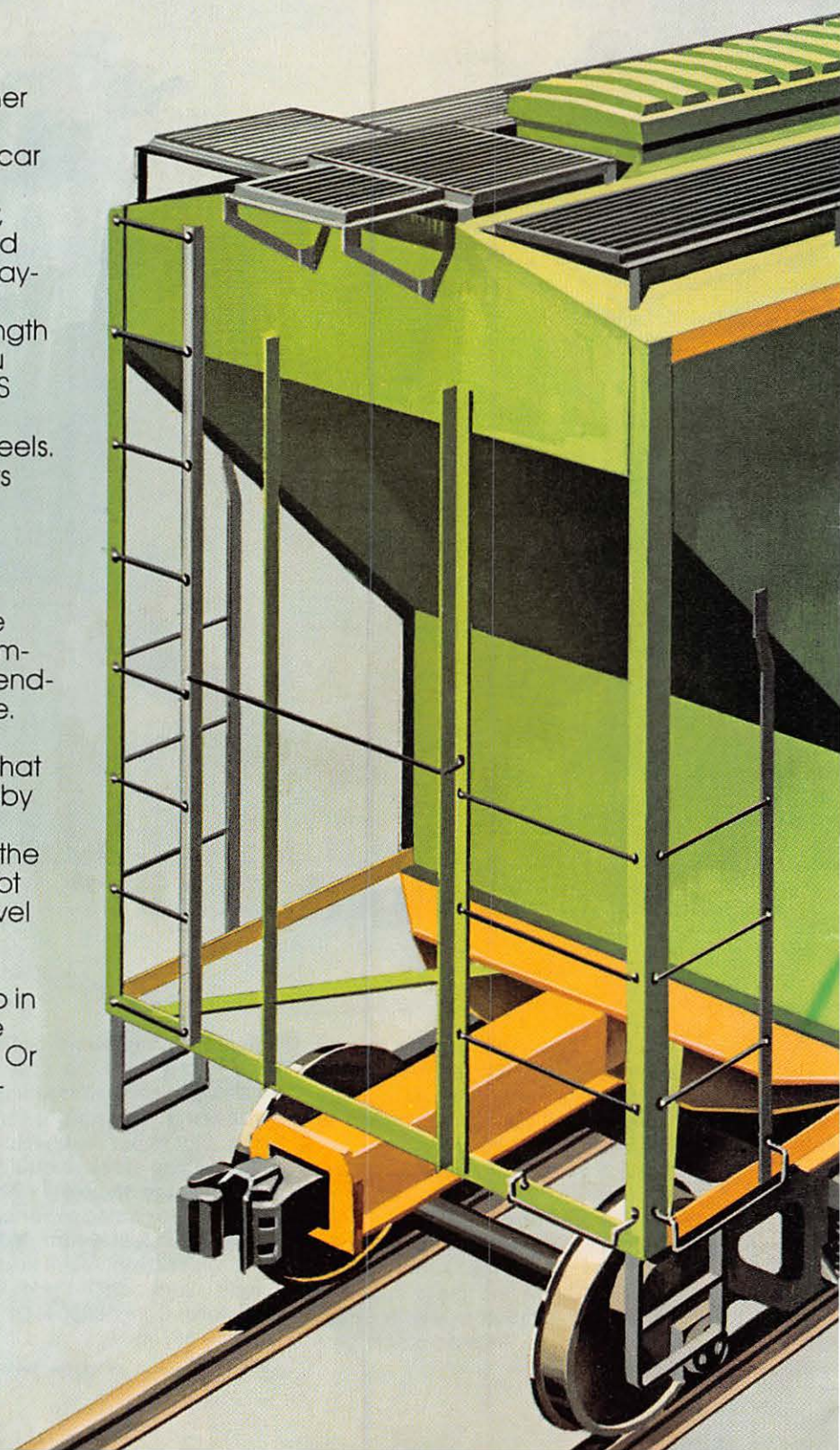

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USS EX-TEN 50 Steel (50,000 psi minimum yield point) for car body.

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system information network will be through an IBM 370 in the terminal office building, which will provide yard personnel with advance consist data; these will be verified by aci scanners on all three inbound routes as trains arrive. When a train is ready for humping, the yard computer will transfer train data to the hump-control computer; after humping, inventory data will be transferred back to the yard computer as a class track is pulled.

A number of other major facilities will be built as part of the Barstow project, including locomotive and caboose servicing facilities and extensive car repair and servicing installations. A four-track diesel servicing operation will handle running repairs and inspections up to monthly, as well as servicing and washing. This facility is one that Larry Cena and Don Ruegg are more than a little happy about: In the present Barstow Yard, locomotives are serviced at the shops, and there is a fair amount of delay-producing congestion which the new operation will eliminate. Car-repair facilities in the new Barstow will include three spot-repair tracks and four heavy-repair tracks.

Largest of the several dozen buildings at the yard will be the new terminal office building, a 24,000-square-foot structure on a single level which will house terminal offices, train-crew facilities, a communications center, the computer room. Visually, though, the focal point will be the terminal supervisor's tower, stretching up for close to 63 feet and providing all-around visibility of yard operations.

● **Santa Fe did it.** Design of the yard has been almost exclusively a Santa Fe effort—another departure from the norm—with Project Engineer Hubert Hall of the road's engineering department in over-all charge of onsite work; Santa Fe is extremely pleased with the way the relatively new eastbound Argentine Yard is working, a yard also handled by Hall.

About 40% of the construction, including grading, rock excavation, rock crushing and construction of bridges and most buildings, utility lines and storm and sanitary sewers is being done by two principal contracting firms. Santa Fe forces are handling the rest, including equipment procurement, track construction, retarder installation, construction of some buildings and installation of communication lines, yard lighting, signal work and electrical systems.

Onsite work began late in January 1974 and grading, which involved 5.5 million cubic yards of excavation, was all but completed by the end of last year. Except for 1.5 million cubic yards of material hauled from the Mojave River bed, fill material requirements were met entirely from the project site. In this context, excavation of a part of the rocky Barstow Hill at the eastern end of the site is doing double-duty. Partial removal of the hill was required in any case by the yard layout; but testing of the hill's reddish rhyolite rock showed that it would serve as a satisfactory ballast and rock fill—and so almost 700,000 cubic yards are being excavated and run through a nearby crusher installation to produce the project's entire ballast and rock-fill requirements.

For bridge construction, Santa Fe standardized on a precast, pretensioned concrete box girder section. Largest of several bridges being built for the project is the new span across the Mojave River, which will be a 1,040-foot-long structure made up of 13 80-foot sections.

NAVAJO TRACK GANG laying 136-lb rail on 4½-mile relocation of main line.

Track-laying requirements will add up to about 113 miles. Except for new 136-pound rail for relocated mainline tracks, all tracks will be laid with reconditioned rail varying in weight from 90- to 132-pound sections. Almost all rail for the project is being welded into 1,440-foot lengths at the road's new centralized rail-welding plant at Amarillo. Ballast, crushed rhyolite from the onsite crusher, ranges from 3/4-inch to 1½-inch.

● **Fighting the desert.** What else did Santa Fe have to provide for? Well, despite the desert location, Barstow is subject to occasional heavy rains, and the provision of adequate flood-protection and storm-drainage features have been important considerations in yard design. The Mojave River itself was deepened and rechanneled to increase its flow-capacity adjacent to the yard and 12,000 linear feet of rock riprap was placed on the south bank to protect the yard. To protect against the deep scour that can result from the "galloping flow" produced by the river's steep—about 0.3%—gradient, riprap has also been placed to a level 16 feet below the streambed.

Computer analysis produced a novel—and economic—solution to the problem of storm drainage from the yard area itself. Santa Fe's studies showed that the excavation of large retaining basins, connected to the river by relatively-small 48-inch-diameter storm drains, would provide the necessary storm protection at lower cost than the construction of the large drainage structures that would have been involved in a more-orthodox solution. Three basins, totaling more than 75 acres, have been excavated for this purpose (and the basins also did double-duty as borrow sites for fill material).

Then, there is dust control—a significant problem both during construction and during normal operating conditions. Heavy sprinkling in advance of any excavation has been a standard procedure during grading operations. Permanent dust-control throughout the area is being provided through use of a cover coat of rock and fines from the crusher, which is placed to a depth of five inches (two inches on side slopes) over the natural sand of the site. This cover coat also acts as a ballast base.

For further dust-control, windbreaks are also being provided. A dike along the south bank of the Mojave River has been raised to a height of 10 feet above the level of the yard to afford a windbreak, and the roadbed embankment from the relocated mainline tracks south of the yard is being left in place for the same purpose. On the dikes and elsewhere in the yard, Santa Fe is planting 14,000 tamarix, 1,000 African daisies and 1,000 oleander trees for both windbreak and beautification. If an experimental application works out, alfalfa plantings will be used for dust-control in the large storm-water-retaining basins.

At this point, Barstow construction is ontime. Track-laying started in earnest early last month, all mainline trackwork was scheduled for completion by the end of January, and Barstow/Los Angeles traffic is to be diverted to the rerouted line early in April, with traffic beginning to move over the rerouted San Joaquin Valley mainline in September.

Will Santa Fe bring Barstow in on-time? Probably. Will the $38-million cost hold? Probably not, although it most likely would have had it not been for galloping inflation. Will Santa Fe soon again build a major electronic hump yard? Maybe sometime—but probably not soon; for the time being, Barstow Yard is it. And it should be quite an "it." ■

Pullman delivers first of "New Family" open-tops

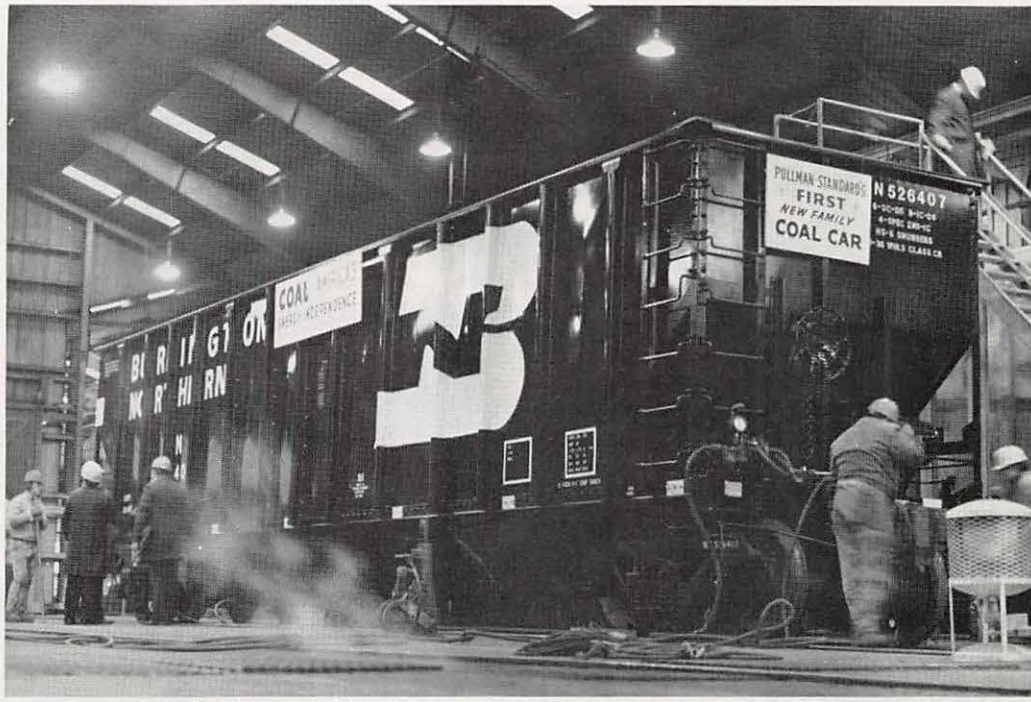
The delivery by Pullman-Standard to Burlington Northern of the first coal car to come off the new open-top car production line at the P-S Butler, Pa., plant was of multiple significance to both parties.

For the customer, G.M. de Lambert, BN vice president of purchasing and materials, noted that the banner displayed on the car—"Coal for America's Energy Independence"—was more than a slogan. "In these energy critical times," he said, "we are very happy to receive this car at this time, and to know that it represents your latest and best achievements in car building technology."

• **First of a long line.** For the builder, the riveted side 100-ton rotary dump, triple hopper car is the first in an order for 1,000 cars placed by the railroad to expand its capabilities for the movement of low sulphur western coal. The new car also shares many features and innovations common to other members of what P-S calls its "New Family" of open tops. And it was manufactured on a completely new production line where all tooling, assemblies and equipment were designed by the Butler plant engineering department with much of the line built at the plant.

Says P-S President E.T. Ahnquist: "We expect this new open top facility to be a mainstay of our car production this year and in years to come. It has been estimated that as many as 150,000 coal cars may be required by this country during the next ten years if a reasonable balance between supply and demand of energy is to be achieved. We are going after a large share of that market." The new production line represents a major capital expenditure at the Butler plant, which currently employs 3,000 people and had a payroll in excess of $34.8 million in 1974.

• **Multi-model.** Flexibility was the key factor in designing the production line to allow rapid adjustment to the variety of car sizes in the "New Family" group. Car models in this group include high and low side gondolas and other hopper cars in triple or quad hopper versions and auto dump cars with two different door arrangements. Hi-line support posts extending the length of 13 car assembly stations, for example, are set in "T-slots" at three-foot intervals, and can be adjusted to fit the length of the car type under construction. A similar production facility, also capable of handling the "New Family" line, is in the planning stage for Bessemer, Ala.



FIRST COAL CAR to be produced on new Pullman-Standard Butler assembly line gets inspection from Burlington Northern and P-S specialists. Butler built 10,351 freight cars in 1974.

BUTLER SUPERVISORS hear how coal car serves energy needs from BN Vice President G. M. de Lambert, at dinner hosted by P-S President E. T. Ahnquist, seated.

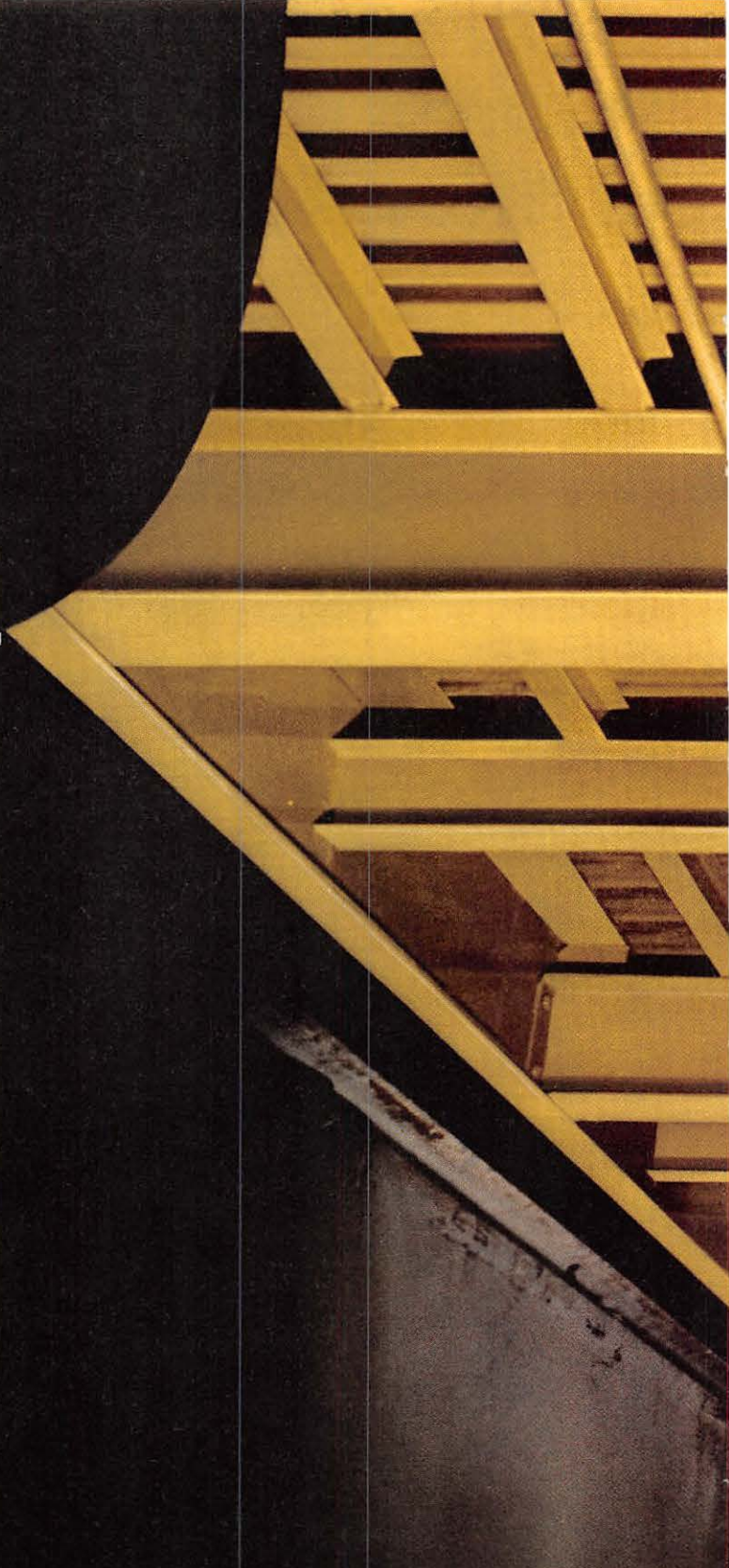
Car side riveting is done quietly by hydraulic compression using a combination of manual and automated riveters. As the car side, with pre-drilled stakes tack-welded into place, is conveyed horizontally into position for automated riveting, two large hydraulic yokes move in on each side and drill holes using the stakes as templates. Two adjacent hydraulic yokes with an 84-inch gap can then be positioned with a single aircraft style control stick by its operator to compress all rivets on the car's side stakes. The entire car side is then indexed along the conveyor for riveting the next stake. Holes drilled in this operation include those for Huck Bolts which are applied on the car assembly line. The new side riveting position facility is the first of its kind in the country.

All welding on the cars will be done with new inert gas shielded, self-exhausting equipment. New cranes for moving car assemblies and materials include 31 five-ton models and four 80-ft, 15-ton capacity overhead cranes. Production scheduling calls for 16 cars a day.

The Butler P-S plant covers 104 acres of land with one and one-half million square feet of working area under roof, and annually consumes 245,000 tons of rolled steel. In 1974, the Butler plant built 10,351 freight cars. ■

Look now.

It may be a long time before you see it in your shop.



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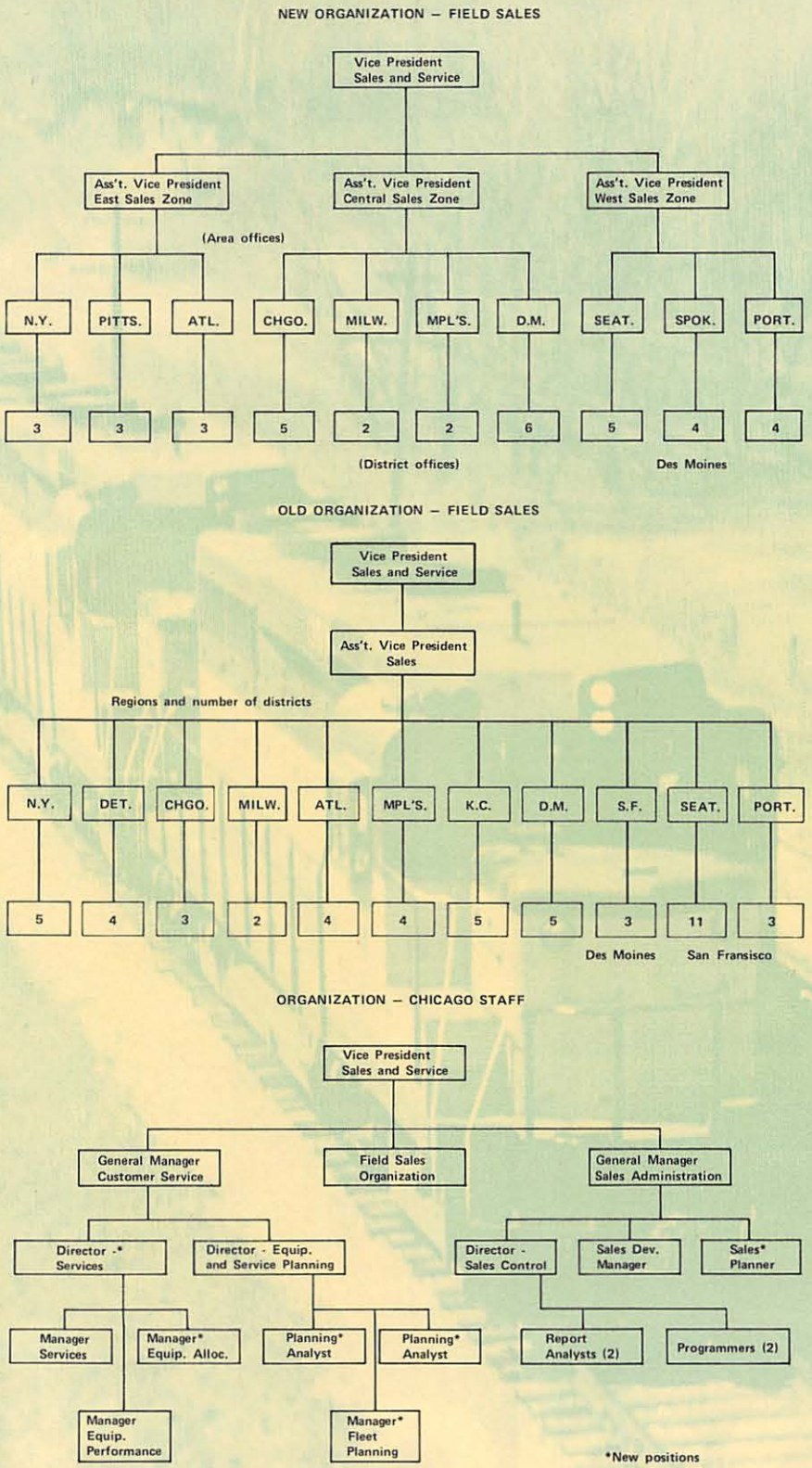
The Milwaukee Road's new approach

By GUS WELTY, Senior Editor

THE NEW, THE OLD AND THE DIFFERENT



In Milwaukee Road's sales-and-service organization, a region/district setup has given way to a zone/area/district structure. Customer-service and sales-administration operations have been upgraded in stature and staffing.

Any organization that has functioned in much the same way for 15, 10 or maybe even five years is probably in need of change—and Milwaukee Road's traffic department was no exception, a fact which Milwaukee people have recognized and acted upon.

First came a restructuring in market development, costing, pricing. Now, Milwaukee is under way with a multi-phase reorganization on the sales-and-service side; Phase 1 went into effect Jan. 1, and planners are looking at a program which may stretch over about four years.

Milwaukee's first move—made after months of study and with the help of a couple of years of improved field sales reporting—was to rebuild sales on a zone/area/district basis. Before, the road had 11 regional offices and under each region were district offices; some regions had only two or three district centers, but one had 11. Reporting lines all fed to an assistant vice president-sales. Now, there are three zones—east, central, west—each under an assistant vice president; the number of area offices has been reduced to 10, with no more than four in any one zone. No area office is responsible for more than six district offices.

• **The results of change.** As Vice President-Sales and Service D. M. Wiseman points out, Milwaukee was able to do a number of things through this remapping:

—Insofar as possible, it got balance among the three zones in terms of revenue-control, traffic-control. In addition, it got a certain commodity orientation within the three; control of certain important commodities, such as grain, lumber, heavy industrial and manufactured products, lies pretty much within a single zone's responsibility area.

—Lines of communication have been improved, up and down. And with zone assistant vice presidents inserted into the organization chart, there is less detail work pouring in on Wiseman and his staff, thus freeing them to devote more time to planning.

—Major offices in sales-and-service were relocated where new concentration was desired. Regional offices in Detroit, Kansas City and San Francisco did not become area offices; but area centers were set up in Pittsburgh and Spokane, which had not had regional status under the old organization. At the same time, in the reshuffling which inevitably accompanies any organizational change, Milwaukee believes it was able to put its most-talented people in vital spots.

—The department's ability to provide

to sales-and-service

service to the individual shipper at virtually any location was not reduced and, Don Wiseman believes, may actually have been improved. Reason: More-centralized sales-and-service support offices can be better-staffed and have more resources available to the customer than small offices scattered over the countryside.

• **Back at headquarters. . .** Change in Milwaukee's traffic approach, however, is not restricted to field sales. In Chicago, much more emphasis is being placed on the customer-service and sales-administration functions, both now headed by general managers. Customer-service, under Larry L. Herndon, is working more closely with both traffic and operating personnel to determine the levels of service required, the levels actually being achieved and the ways and means of bringing achievement up to requirement in cases where it's falling short; analysts are looking at Milwaukee's market share and at the quality of its freight revenues in terms of profitability; equipment earning capability is under study, and one result should be that Milwaukee will be better able to do longer-range planning for equipment acquisition. On the sales-administration side, under Stephen F. Lupe, the road is trying to get a better grip on the sales effort, in part through better and more timely reporting; and it's stepping up sales training, starting with training in the Milwaukee Road product itself and then moving on to more sophisticated programs to eliminate any deficiencies in skills or technique which may exist among Milwaukee sales personnel.

Down the line, Don Wiseman and his people are also looking at several other moves which should improve the railroad's sales capability and its profitability.

Analysts are now working on a comprehensive customer-profile which, it is hoped, will provide better quality-and-quantity measurements of traffic and thus help Milwaukee to better concentrate its efforts. In addition, the road—like a number of others—is working, carefully, toward some better way of rewarding the effective salesman for what he does. As anybody who has ever studied it knows, this can be one of the real puzzles for a sales vice president: Sales personnel are salaried; responsibility for accounts and credit for success are often split (for instance, in Milwaukee's case, more than one sales office is involved in one way or another in business which produces about 80% of total freight revenue); and so, the question is, while you can fire the salesman who doesn't produce, how do you reward the salesman who's really a star?

• **Help with "reward" programs.** As it happens, Milwaukee has a few things going for it in this "incentive" area. One is its appraisal and salary-administration program; another is its management-by-objectives (MBO) setup; a third, which came along with the restructuring of sales-and-service, is the fact that more opportunities for promotion have been opened up.

As Don Wiseman notes, in any sales force—and especially in one that works totally on salary—there's a tendency to concentrate on the accounts where the salesman feels "comfortable" and to make only a perfunctory effort on the tough accounts. Under the MBO program, Milwaukee did identify a number of "tough" accounts—it developed plans for dealing with them, it set dollar goals and it encouraged sales personnel to go to work on these potential sources of revenue. MBO results, of course, become inputs to the salary-administration program.

With the new organization, Wiseman says, sales people are being given a better view of the future: "Many know now where the program will be four years from now, and where they can be—if their performance warrants." Too, the customer-profile should make it possible for Milwaukee to tell where sales influences are and how important they are, and this should help in assessing and rewarding sales performance. In any event, it would appear at this point that whatever incentive program is eventually adopted will include recognition of the individual who excels in solving customer problems.

• **How it's going to work.** In what Milwaukee has done and is doing, Wiseman and his top aides point out:

—Milwaukee is not a rich railroad, though it would like to be. Reorganization of sales-and-service thus had to involve no increase in budget and no decrease in sales coverage with, hopefully, an increase in sales effectiveness.

—Planning of the reorganization, in Phase 1 and in succeeding phases, is based on participation of those affected.

—Schedules for implementing the plans will be flexible, but they will also involve setting goals and timetables for reaching those goals. Checking the results will be a veteran of the sales wars, Vice President-Traffic George H. Kronberg, and an experienced operating officer who was vice president-market development at Burlington Northern before coming to Chicago, Milwaukee Road President Worthington L. Smith. ■

The marketing/profit center concept—and how it has paid off

It was just about two years ago that Milwaukee Road made its first big change in the traffic department—setting up a market development and pricing division with four commodity-oriented profit centers. And what has two years' experience with the new concept shown? It has shown that Milwaukee made a wise move.

Thus far, nobody really has tried to put a dollar tag on the results, comparing what has happened with what might have happened under the old setup. That sort of exercise, traffic officers believe, could be done only in hit-or-miss fashion—and the results would probably prove very little. What is important, says G.F. Reynolds, vice president-market development and pricing, is the progress made in improving Milwaukee's over-all profitability.

What has been happening? For one thing, much of the traffic on which the railroad was realizing little or no profit has either been switched over to the profit side or its movement has been discouraged. For another, new concepts in distribution have been developed and they have produced revenue growth well beyond what might have been expected.

Under the former organization of the department—which was more rigid and more restrictive so far as innovation was concerned—such improvements might or might not have been possible; Reynolds leans toward the "not" side. His view: The profit-center approach has indeed proved-out as the right approach for both the railroad and the customer, for building Milwaukee Road capabilities around customer needs, for improving railroad profitability. Results from the past two years' efforts, he declares, "have been impressive."

"This is a picture of coming to a stop."

Carl Wright, Vice President, Engineering

Our Engineering Department's computer drew this picture.

Although the actual stop only took 33 seconds, it took 8 hours of computer time to develop what happened to each car in the train. Since this picture shows all of the internal train forces at work during the braking period, we now know more about this particular stop than the brakeman or engineman on the train.

Pictures like this tell our engineers many things. They help us help you. They suggest better ways for you to stop a train without damaging shocks. Of course, they also point the way to new developments in our braking systems. And the computer is only one of our many research tools.

As you move to bigger cars, carrying more, braking becomes more and more important. So our research becomes more and more intense. This research has resulted in braking's contribution to improved railroad productivity and profitability.

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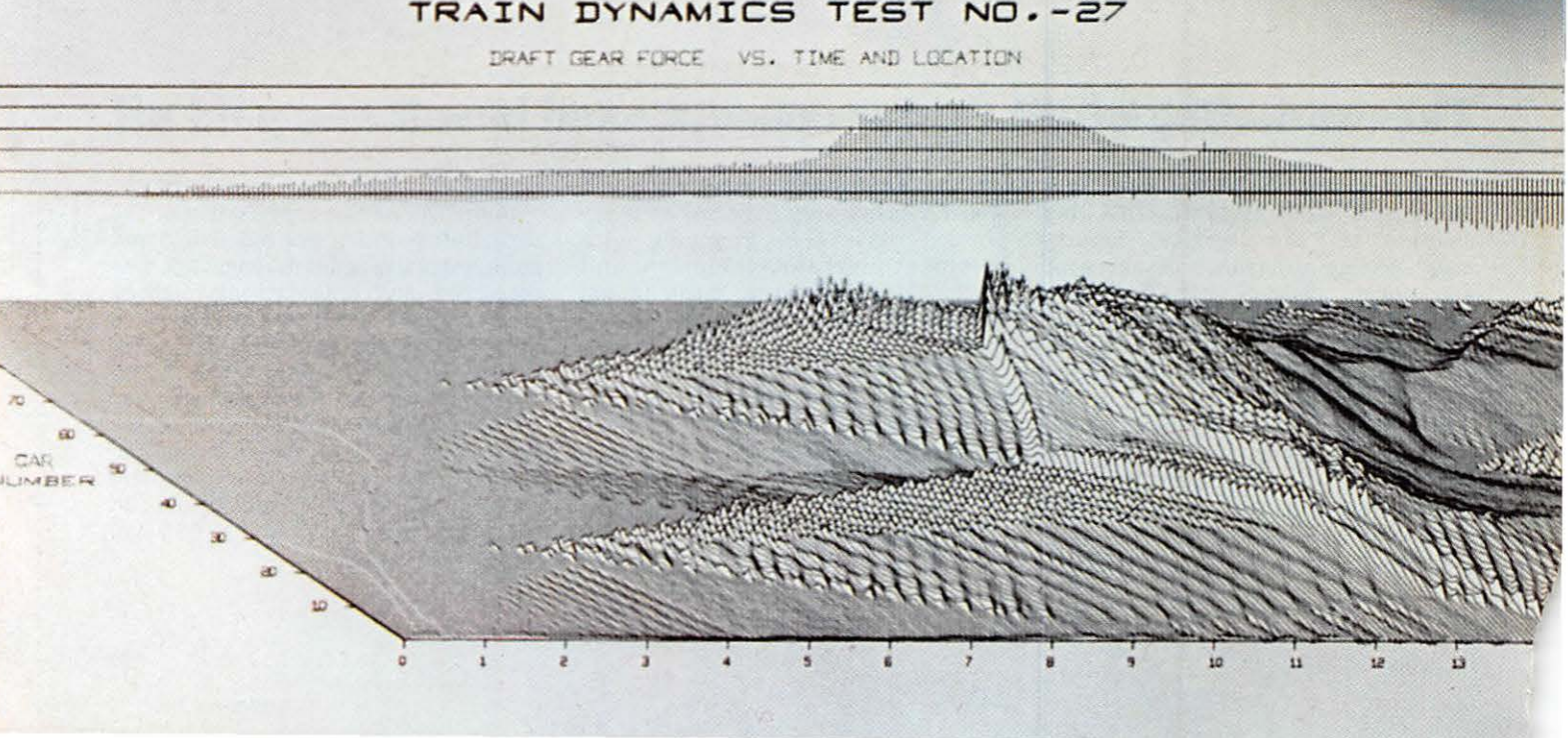
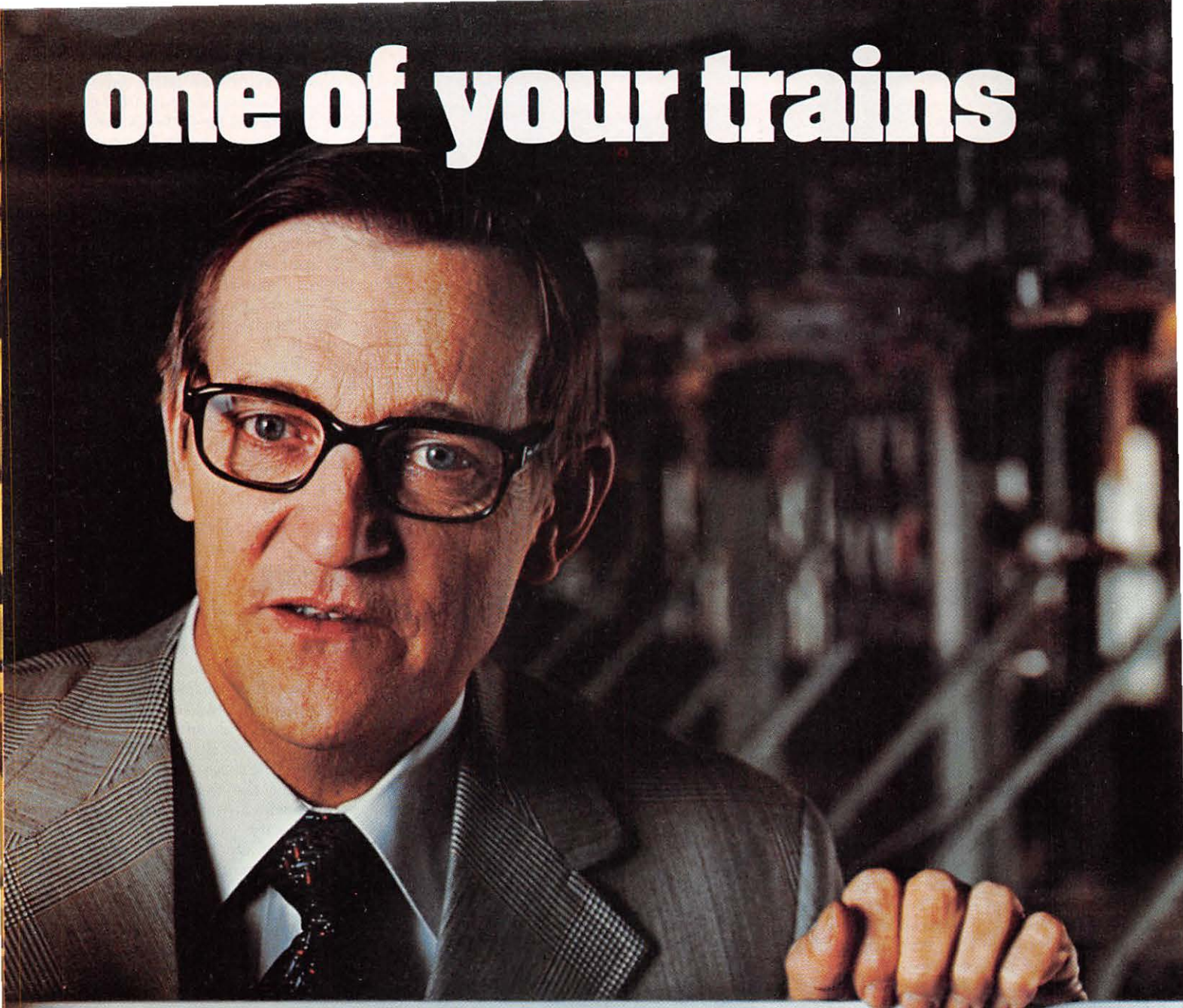
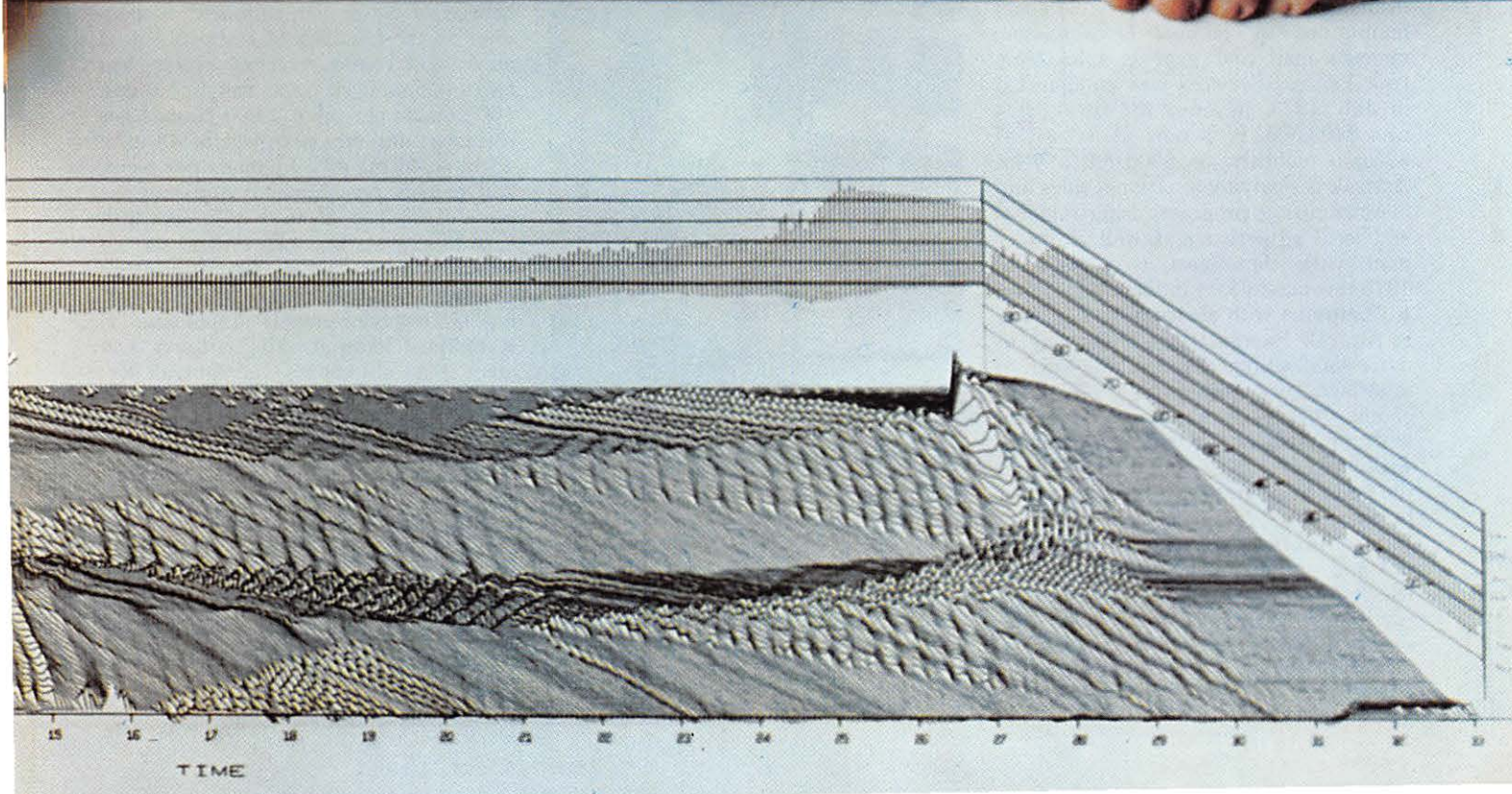


one of your trains





SPEED AND ECONOMY will foster express growth in view of Amtrak's Sam Johnston.

DOOR-TO-DOOR via Amtrak looks bullish to Howard Cordover, Associated Couriers.

Revenues climb sharply for Amtrak Express

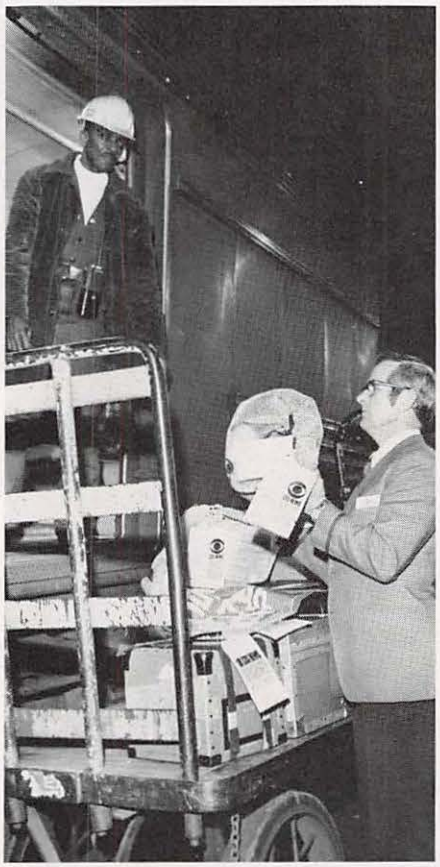
By KENNETH ELLSWORTH
Mechanical Editor

Television news film, cut flowers, textile goods, computer tapes and personal belongings of GI's on the move are among the hundreds of items being carried station-to-station—or door-to-door where specified—by the Amtrak Express Services. Over 400 cities and towns are being serviced nationwide by this arm of the National Railroad Passenger Corporation.

The income potential of the service is evident from an express revenue chart maintained by Samuel D. Johnston, manager-mail and express sales. Amtrak Express Services was inaugurated in July 1973. Revenue for fiscal 1974 was $409,000. It is now at a level of $75,000 monthly, or $900,000 a year. Amtrak is readying a national sales and merchandising program, using regional and local advertising as well as direct mail, with the objective of boosting 1975 revenue to $1½ million.

• **Competes with air freight.** "Not only is Amtrak Express the easiest way to move small shipments from mid-town to mid-town at low rates," Johnston claims, "but we can compete timewise with air freight on small shipments within 1,000 miles door-to-door from the point of origin to destination served by the intercity Amtrak routes." These shipments are a by-product of the essential and uneconomical baggage service which Amtrak is obliged to offer to attract passenger traffic and to meet ICC service requirements.

Amtrak Express offers the options of station-to-station delivery, where shipments can be left for pick up by the consignee at the station destination baggage room, or door-to-door pick-up and delivery service. The latter service is handled by Associated Coast-to-Coast Couriers, the official agent for Amtrak. Pick-up will be made normally within one hour of the telephone call requesting it, and delivery will be made within 90 minutes from the time the train arrives in the station at destination, according to Amtrak.



NEWS FILM for CBS-TV, New York, is loaded onto "Night Owl" at Washington.

On the Amtrak station-to-station express service, the normal complement of personnel on baggage cars has been adequate to handle the traffic to date, Johnston says.

Columbia Broadcasting System is one of two networks using the express service for the shipment of film, videotapes and camera equipment between Washington and New York City. William Covell, manager of traffic for CBS, says, "The system works well for us on a mid-city to mid-city basis for those things we ship back and forth. It's reliable, saves us a substantial amount of money, and we are looking forward to the day when the Metroliners can make the Washington-New York run at the speeds of which they are capable so we could use them exclusively—even for those items which are 'super rush.' We watch the weather, because we know that Amtrak runs when everything else may be stopped or subject to indeterminate delays." CBS has used both Amtrak priority express and economy express—two of the three small shipment services which Amtrak provides.

Amtrak priority express is a high-speed service for small package traffic weighing up to 25 pounds per shipment. It carries a charge of $10 per shipment between stations on a through route. Amtrak economy express for small shipment service between stations throughout the U.S. served by Amtrak express cars is subject to a minimum charge of $7.50 per shipment. Depending on the facilities of stations served on Amtrak routes, economy express has two maximum size and weight ranges: 100 pounds per piece, 1,000 pounds per shipment and size per piece of 48 in. x 48 in. x 48 in.; or 50 pounds per piece, 250 pounds per shipment and size per piece of 36 in. x 36 in. x 36 in. Amtrak custom express is a tailor-made service established to meet the individual requirements of shippers with frequent, regular, heavy or unusual shipments.

• **Military likes it.** The military has made trial shipments via Amtrak Express of the belongings of personnel moving from base to base. Commenting on test shipments from Hanscom Air Force Base at Bedford, Mass., the Hanscom traffic management officer, Carl V. Kern, states, "We shipped four pieces weighing 400 pounds total from Hanscom to Minot, N.D., leaving here Wednesday and arriving at Minot on Saturday. The in-transit time is outstanding since this would normally take 20 days or more. We also had a favorable ex-

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The handle of Sloan's Retaining Valve operates through three positive detention positions for "sure" selection of the setting desired.

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BRAKE CYLINDER RELEASE VALVES With right or left hand bracket portion	**ANGLE COCKS** Ball type
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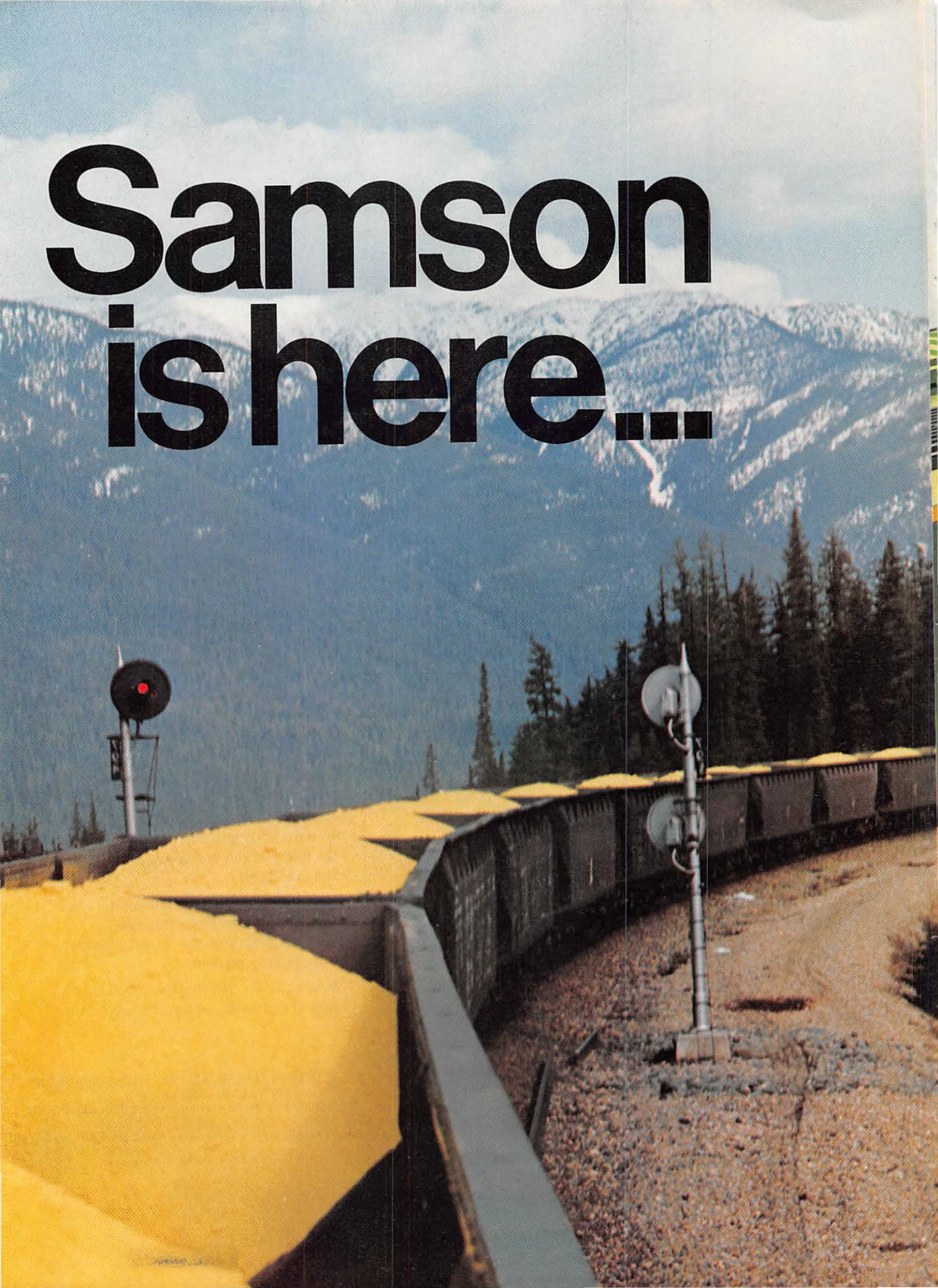
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perience on a shipment to Montgomery, Ala. We chose the winter months to make these test shipments since the number of transfers is far below that of summer, and we could more closely monitor Amtrak's performance." Kern plans further test shipments.

The military market for small shipments is substantial, according to Amtrak's Joe O. Bellino, manager-government and military marketing. "Movement of small parcels and package units has been one of the most perplexing problems of the military," says Bellino. "Big items pose no problems: it is the small shipments that can become delayed to the point of exasperation. These range from a soldier's unaccompanied baggage following him to a new base to military inventory items like fuel pumps and gaskets. Transit time is very important in reducing the amount of time inventory may be tied up in a pipe line."

A textile firm, Yemassee Manufacturing Co. in Yemassee, S.C., has been using Amtrak custom service the past five months. The company ships yarn from Philadelphia to its Yemassee plant and sends the same yarn back to Philadelphia as men's and boy's sweaters. Aaron Sowall, head of the company, says, "The reason we use Amtrak is the great advantage of speed which enables us to get finished products onto the market place overnight. A shipment of 150 dozen sweaters put on the 6:45 evening train out of Yemassee is in Philadelphia by ten o'clock the next morning."

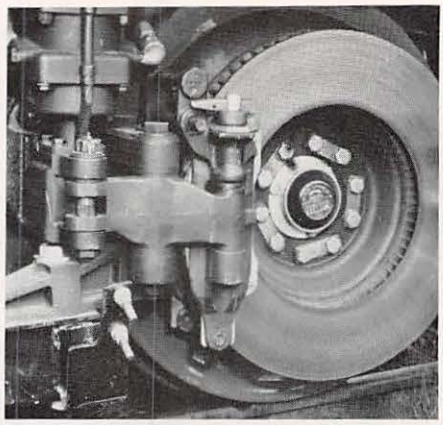
● **"Word-of-mouth endorsement."** Door-to-door service has been growing steadily since July 1974, when Associated Couriers became the official Amtrak agent, says Howard Cordover, executive vice president of Associated: "In addition to advertising and direct mail, a large part of our business growth has come by way of word-of-mouth endorsement from shipper to shipper. While the bulk of our Amtrak Express small package shipments is in the Boston-Washington routes, we also service clients door-to-door overnight to Florida and to the west coast in four days." As an example, Cordover cites the computer-processed orders for textile products which are picked up daily from Spartan Industries in New York City. Associated then delivers the shipment to the afternoon train leaving for Charleston, S.C. (and points south), where Spartan has a plant. The shipment is picked up at the Charleston station at 5:20 a.m. and delivered to the plant where yesterday's orders can be scheduled in the morning for same day production.

"Our standard procedure," says Cordover "is to confirm by telephone to the original shipper the signature of the consignee within 30 minutes of delivery." ■

Disc braking to be tested on GTEs

Disc-assist braking will be tested on four of the eight prototype gas turbine electric (GTE) commuter cars scheduled for revenue service on the Long Island later this year. The braking application will be installed on cars built by General Electric for the New York State Metropolitan Transportation Authority (RA, Nov. 11, 1974, p. 10). The braking unit was designed by GE and the Westinghouse Air Brake Division of WABCO, an American Standard company.

On-tread and disc braking have been combined in this disc-assist application in which the braking load is shared in a 35% to 65% ratio, disc to on-tread. An integral pneumatic to hydraulic converter, a WABCO innovation, improves the speed of braking response and makes possible a reduction of the size and weight of the over-all unit. The unit owes its compact design, according to WABCO engineers, to a multiplication ratio wherein the effective area of the internal pneumatic piston is 10 times greater than the hydraulic piston area. Any pneumatic pressure input results in a 10 times greater output at the hydraulic cylinder.



DISC-ASSIST BRAKING system designed by Westinghouse Air Brake and General Electric is set for testing on the Long Island.

Heat reduction is one of the major advantages that disc braking contributes to the disc-assist application. The disc serves as a better heat transfer device than the wheel. Each of the cars has four 24-in. discs and eight on-tread brakes as well as dynamic braking. The disc-assist application is expected to maximize the life of the brake shoe, disc pad and wheel, says WABCO.

Chessie lays 5,000th mile of welded rail

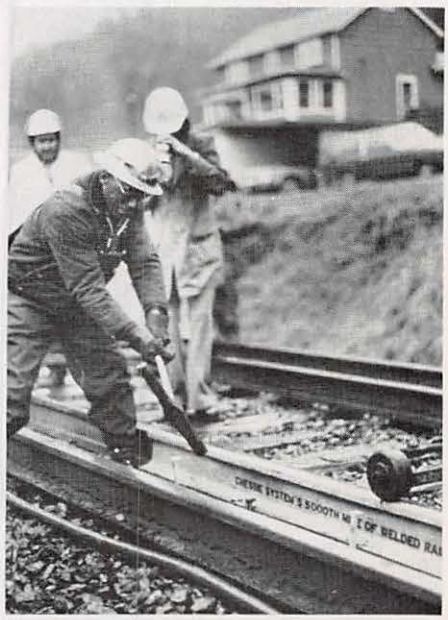
The Chessie System on February 5 became the second U.S. railroad to spike into place its 5,000th mile of continuous welded rail. The Santa Fe reached the 5,000-mile mark last year, in Missouri (RA, Sept. 30, 1974, p. 48).

In a brief ceremony on C&O's main line, near Milepost N452 across the river from the West Virginia Capitol Dome, 27 machines stopped work as 64-year-old Curtis Spencer Jones (see photograph), left the controls of his air-operated dual-spiking machine to hand-drive a steel spike into the end of the 5,000th mile.

Over 1,000 miles of CWR has been laid on Chessie lines in West Virginia. Another 98 miles will be laid in the state by the end of 1975. Chessie has over 2,000 route miles in the state.

As the West Virginia ceremony took place, four other system track crews were laying welded rail in Maryland, Michigan and Ohio. When the seasonal track program reaches its peak in July, the crews will be laying more than 40 miles a month. By the year's end, 416 added miles of welded rail will be in place on the 13-state, 11,000-mile Chessie system. Eventually, all the system's main line and major yards will be of welded rail.

Weighing over 200 tons per mile, Chessie System's rail is made by United States Steel and Bethlehem Steel, and then welded into continuous quarter-mile-long strings at the railroad's rail-welding facilities at Russell, Ky., and Green Spring, W.Va.



CWR MILESTONE was reached by Chessie near Charleston, W. Va.

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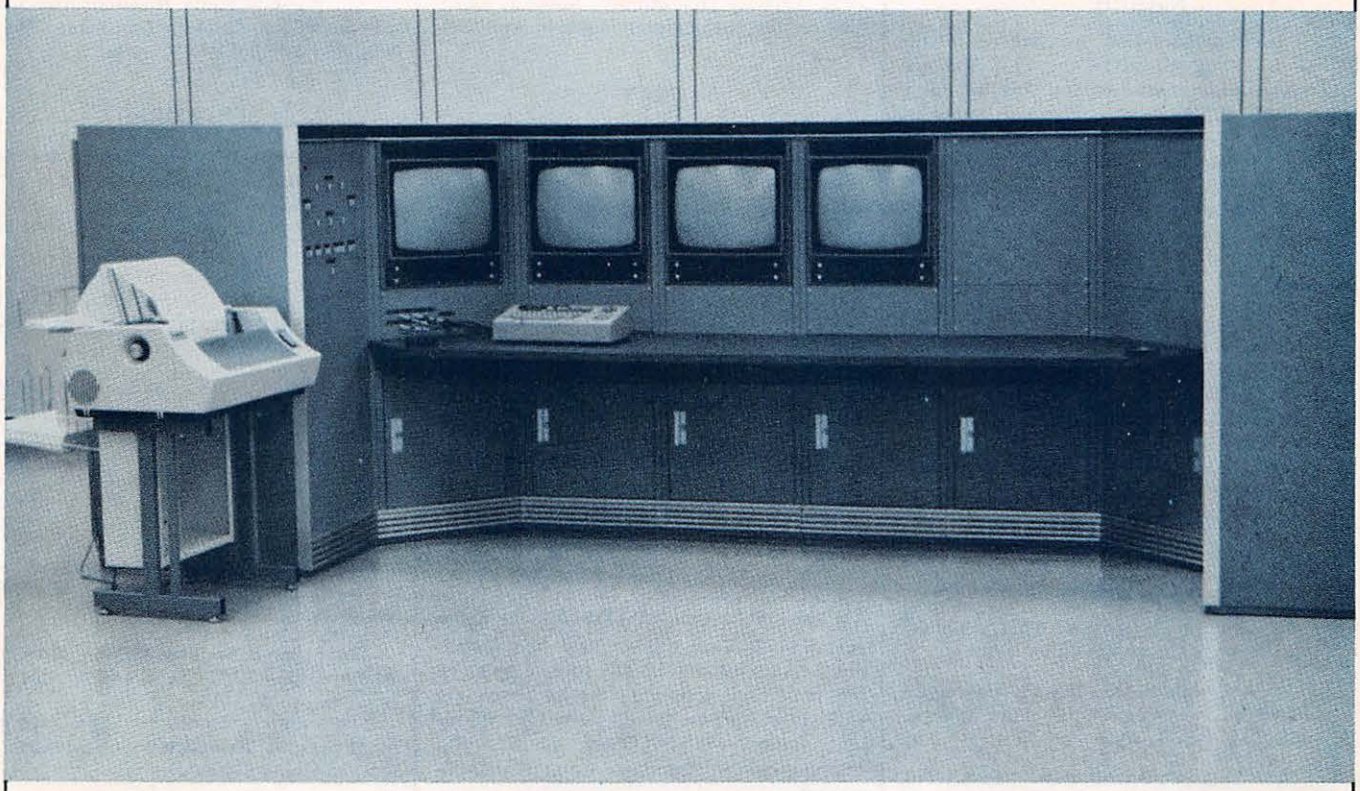
COLOR VIDEO cTc AND NX



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1975 Calendar of Meetings and Exhibits

MARCH

"Transportation and the challenge of Inflation" is the theme of the 1975 **National Transportation Institute and Exhibit** sponsored by the Transportation Association of America. The Institute will be held March 5-6 in the Conrad Hilton Hotel, Chicago. The exhibit area will be open to all attendees and to the general public. At a luncheon session March 6, the TAA-Seley Transportation Awards will be presented by Edwin F. Mundy, vice president of traffic, Nabisco Corp.

The first annual conference and exposition of the **American National Metric Council** will be held March 17-19 in Washington, D.C. Included will be exhibitions by countries now converting to the metric system, organizations offering metric products and services and companies engaged in metric conversion programs. The conference will be structured around the theme "Managing the Change to Metric—A Report to the Nation on the Management of Metric Implementation."

The **Engineering Division, AAR,** will meet March 24-26 in Chicago's Palmer House.

An **American Public Transit Association** rail transit conference will be held in Washington, D.C., March 31-April 4.

The **Logistics/Distribution** seminar of Northwestern University's Transportation Center is scheduled for March 10-14. Class sessions will meet on the 6th floor of Leverone Hall, 2001 Sheridan Road at Foster Street, Evanston, Ill. For further information write to C. Page Townsley, director, Management Programs Office, Evanston 60201.

The **Western Railway Club's** annual ladies night party is scheduled for March 8 at the Marriott Motor Hotel (O'Hare Airport), Chicago.

The next meeting of the **American Railway Engineering Association** will be in Chicago's Palmer House, March 24-26.

APRIL

Transport-Expo 75 will begin April 20. It will be held in the exposition grounds of the Paris-Le Bourget Airport. Public transport systems will be a main attraction. Further information is available from Technoexpo, 8, rue de la Michodiere 75002, Paris, France.

Data Communications Interface 75—the third annual **Data Communications Conference & Exposition**—will be held April 21-23 at the Rivergate Convention Center, New Orleans, La. Transportation applications will be highlighted.

The **American Railway Development Association** will meet April 27-30 in Chicago.

The **Railway Progress Institute/Transportation Materials Management Forum** seminar "The Time of Opportunity—Now" is scheduled for the Drake Hotel, Chicago, April 8-9.

MAY

The **American Public Transit Association** will hold its western conference in San Francisco, May 4-8. APTA's mid-year meeting will be held May 19-22 in Rochester, N.Y.

The ninth **Aluminum Welding Seminar** will be held May 6-7 at the Sheraton-Portland Hotel, Portland, Ore. The seminar is sponsored by the Aluminum Association, the American Welding Society and the American Society for Metals. Additional information is available from the Aluminum Association, 750 Third Ave., New York, N.Y. 10017.

Western International Freight Conference and Exposition '75 will be held May 13-15 at the Los Angeles Convention Center. A trade show of products and services will be featured.

St. Anselm's College (Manchester, N.H.) has announced that its 18th **Annual Transportation Seminar** will be held May 14-15. Focal point of this year's seminar will be economics and service in the transportation industry in the face of rising inflation. Among the speakers will be George M. Stafford, chairman of the Interstate Commerce Commission.

The annual meeting of the **Western Railway Club** is set for May 19 in the Traffic Club of the Palmer House, Chicago.

The annual meeting of the **Association of Railroad Advertising Managers** is set for May 3-7 in the Doral Hotel & Country Club, Miami, Fla.

The **Advanced Transportation Management Program** of Northwestern University's Transportation Center is set for May 12-June 5. Class sessions will meet on the 6th floor of Leverone Hall, 2001 Sheridan Road at Foster Street, Evanston, Ill. Additional information is available from C. Page Townsley, director, Management Programs Office, Evanston 60201.

JUNE

The **Freight Claim Division, AAR,** will meet June 10-12 at the Hotel Pier 66, Fort Lauderdale, Fla.

The annual meeting of the **American Association of Railroad Superintendents** will be held June 17-19 in the Baltimore Hilton, Baltimore, Md.

A **National Conference on Light Rail Transit,** sponsored by the Transportation Research Board, will be held June 23-25 at the Bellevue Stratford Hotel, Philadelphia, Pa.

The **Safety Section, AAR,** will meet June 23-25, in the Washington Plaza, Seattle, Wash.

The **Railroad Public Relations Association** will meet June 25-28 in Le Chateau Montebello, Montebello, P.Q., Canada.

SEPTEMBER

The **Coordinated Mechanical Associations** will hold their annual meetings Sept. 13-17 in Chicago's Conrad Hilton Hotel. Exhibits of the Railway Supply Association, originally planned for the same time, have been rescheduled to coincide with the 1976 meetings of the Coordinated groups, which will be held Sept. 24-28, also in Chicago. Indoor and outdoor displays are planned.

The annual meeting of the **Railway Systems Suppliers** is set for Sept. 15-18 in the Fairmont-Roosevelt, New Orleans.

The **Communication and Signal Section, AAR,** will meet Sept. 15-17 in the Fairmont-Roosevelt, New Orleans, La.

The **Data Systems Division, AAR,** will meet Sept. 17-19 in the Fairmont Roosevelt, New Orleans, La.

The **Police & Security Section, AAR,** will meet in Denver, Colo., Sept. 15-17.

The annual meeting of the **American Public Transit Association** is scheduled for Sept. 28-Oct. 2 in New Orleans.

The **American Short Line Railroad Association** will hold its annual meeting Sept. 29-30 in the IDS Center, Minneapolis.

Celebrations will be held this year in the United Kingdom to commemorate the 150th anniversary of passenger railways and the opening of the Stockton to Darlington Railway. The Senior Chartered Engineering Institutions, Civil, Mechanical and Electrical, together with the Signal Engineers, will mount an **International Engineering Conference** in London, Sept. 22-26. Details are available from the Secretary, Railway Division, Institution of Mechanical Engineers, 1, Birdcage Walk, London, SW1H 9JJ, United Kingdom.

OCTOBER

The **Treasury Division, AAR,** will meet Oct. 13-15 in the Boca Raton Hotel & Club, Boca Raton, Fla.

The next meeting of the **Railway Tie Association** will be held Oct. 15-17 in the Hotel Roanoke, Roanoke, Va.

The 67th annual meeting and dinner of the **Railway Progress Institute** will be held Oct. 30 in the Washington Hilton, Washington, D.C.

NOVEMBER

The annual meeting of the **National Industrial Traffic League** will be held Nov. 20-22 in the Hyatt Regency, Houston, Texas.

The ICG knew there had to be a better and more economical way to provide their shippers with grain door protection.

International-Stanley helped them find it!

C. W. Damiano, ICG general superintendent car control (center), discusses grain door kit deliveries with Richard Arthur, I-S district manager (left), and Jack M. Reckley, ICG superintendent car control.

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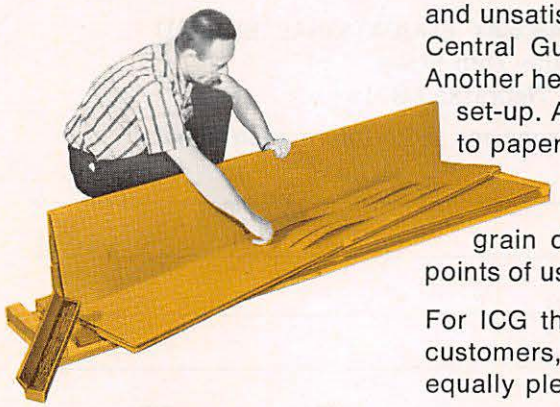
Between pilferage, delays in unloading heavy doors at coopering points, and unsatisfactory sanitation, wood doors were a headache to the Illinois Central Gulf Railroad Company's car control and freight claim people. Another headache was the cumbersome inventory control and distribution set-up. After discussion with ICG executives, it was decided to convert to paper doors; and International-Stanley Corporation representatives, together with ICG car control people devised a unique plan whereby I-S assumed responsibility not only for supplying the grain door kits, but for delivering required quantities direct to ICG points of use.



I-S delivers grain door kits—containing everything needed to cooper one car in a convenient single package—direct to points of use.

For ICG this has meant increased efficiency, lower costs, and satisfied customers, since elevator operators, processors, and other shippers are equally pleased with the new grain door operation.

Write or phone for further information. **Toll free: 800/228-9257**

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Locomotive	
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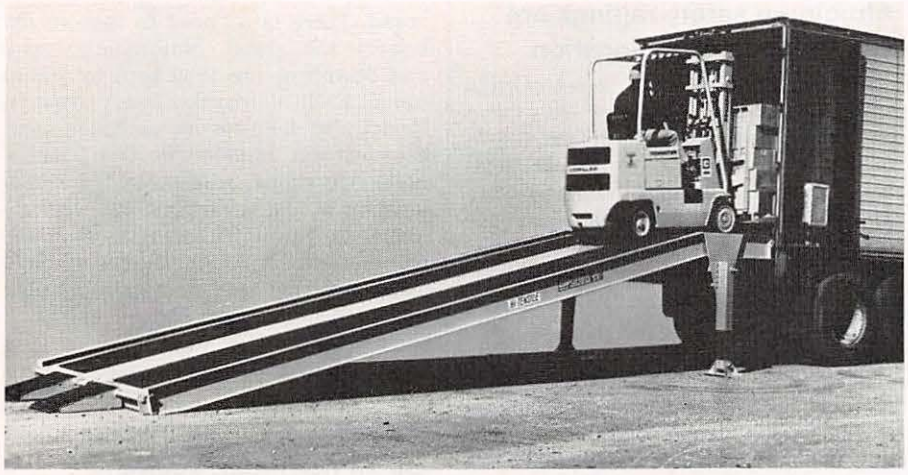
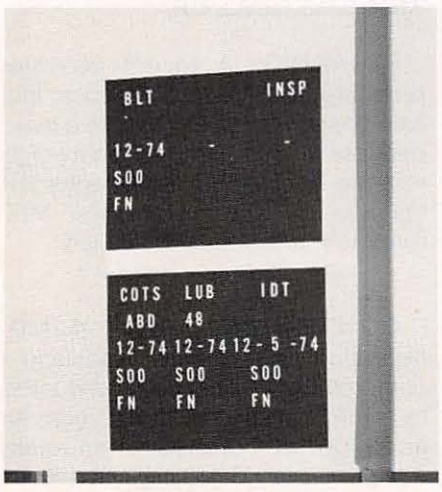


Loading ramp features an anti-skid loading surface

A new portable loading ramp features a patented anti-skid loading surface of abrasive metal grit permanently bonded to the ramp with metal. The surface permits industrial lift trucks to load and unload safely even when the ramp is wet. Called Superramp, and manufactured by General Engines Co., it is available in 20,000-lb and 40,000-lb capacities. Other features include adjustable legs that raise or lower the ramp to various truck heights and a self-supportive (50,000-lb capacity), front end which does not depend on truck or dock for support when loading.

Circle 60 on reader service card



Freight car marking system uses films instead of paint

A railroad car labeling system which uses marking films instead of the stencil and paint method has been introduced by the Decorative Products Division of 3M Co. The system facilitates marking freight cars with the inspection and repair information required under AAR Rule 80, and meets or exceeds all of the rule's requirements. The pressure-activated, easily positionable background film and job-matched "pop-on" letters make legible, uniform markings which last eight or more years. They can be easily applied and updated at any maintenance location. Application requires fewer steps than paint, thereby reducing expensive manhours of work. The background of the system is Controltac brand film, which can be applied in either cool or hot temperatures without the problems of pre-adhesion. It can be repositioned until it is exactly right and then adhered without air bubbles or wrinkles. Freight car backgrounds are 18 by 15 inches, and flat car backgrounds are 11½ by 18 inches. "Pop-on" letters and numerals are available along with a high impact-resistant font box.

Circle 61 on reader service card

Recorder is made for long-term monitoring/recording of data

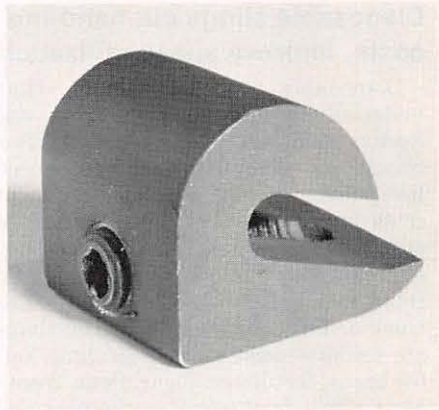
A portable, battery-powered strip chart system for recording periods of seven to 60 days is available from Dallas Instruments, Inc. Called the Model UR-12 Universal Recorder, it is intended for adaptation to special recording applications by the customer, or it can be furnished as a complete instrument package to the user's specifications. Applications include the recording of voltage, current, temperature, pressure, dissolved oxygen, noise level, transients, events, flow, light level, shock and vibration levels, environmental criteria, corrosion and pollution. The instrument is housed in a formica-covered marine plywood carrying case, providing a rugged package suitable for field or laboratory use. The standard model is priced at $495.

Circle 62 on reader service card

Cargo-control winch meets all DOT requirements

An addition to Kinedyne Corp.'s line of cargo control systems is called the 3820 Light Heavyweight winch. The winch moves in a track which can be fastened to the full length of a flat bed trailer or truck. Any number of winches can be positioned along the track with a nylon strap to suit cargo hold-down. The winch meets all requirements of the Department of Transportation.

Circle 63 on reader service card



Anti-theft device can be reused indefinitely

An anti-pilferage device, Upper Rail Loc, is designed for use on rail car doors to provide security for all rail cars, particularly those carrying hot load shipments. Developed by the Cargo Security Equipment Division of Brammall, Inc., the device—made of strong, lightweight, extruded aluminum—can be reused indefinitely. Small in size and inconspicuously painted, Upper Rail Loc is easily installed from dock or ground level in seconds.

Circle 64 on reader service card

Heavy-duty padlocks offer maximum cargo security

A line of Finnish-made heavy-duty padlocks for protecting cargo in railway freight cars and trailer and van-type trucks has been announced by Abloy, Inc. The locks, designed for severe outdoor service conditions, may be used

with hasps or chains to secure a variety of doors. All Abloy padlocks feature a locking cylinder with rotating disc tumblers, just like a safe, instead of easy to pick spring-loaded locking pins. Their semi-circular keys act directly on the disc to effect alignment and scramble the combination upon removal. Its distinctive profile is difficult to duplicate. Model 3071 withstands 11,000 lb of pull; its materials make it highly corrosion resistant and practically impervious to salt, rain, rust and other outdoor contaminants.

Circle 65 on reader service card

Disposable slings cut handling costs, improve space utilization

Disposable cargo slings that materially reduce handling costs and loading time are available from Liftex Slings, Inc. The slings eliminate need for pallets, reduce capital equipment costs and permit better utilization of space in warehouses and vehicles. They also eliminate the cost of checking and returning pallets and permit faster truck or rail car turnaround. The slings are recommended for cement, lime, coffee beans, fertilizers, sugar, flour, frozen meat, citrus fruit boxes, metal tubes and other bulk and semi-bulk products. Made of a combination of polyethylene and polyester, the slings are available in a wide range of sizes for handling a wide variety of loads.

Circle 66 on reader service card

Temperature recorders cover different shipping time spans

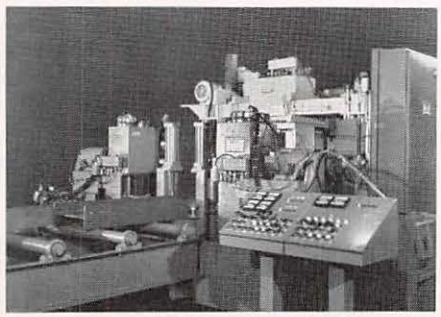
Model E transit temperature recording instruments are available to shippers of perishables in six different submodels. Five contain different chart advancement rates and duration dates, and one provides an instrument for all shipments originating in Canada. Each sub-model—from Ryan Instruments, Inc.—is contained in a different color case and contains a color-coordinated recording chart dispenser. The instruments vary in temperature recording duration from four days to as long as 48 days. Temperature recording charts in each of the instruments advance at different daily inch rates, providing shippers, receivers and transporters with the closest possible daily temperature fluctuation reading.

Circle 67 on reader service card

Aluminum safety railings are adaptable to every location

Safety railings that meet OSHA specifications for railings on every open-sided floor or platform four feet or more above the floor or ground level have been developed by Rampmaster. The company's rigid all-aluminum pipe railings prevent falls and costly equipment run-off accidents, yet give free access to railroad sidings, trucks and all loading areas. The railings fit into lifetime aluminum floor sockets which are easy to install permanently. They are held in place by a quick-release pin, so any section of railing can be removed by one man in seconds for access to any carrier. The railings are available in 4-ft and 8-ft sections adaptable to any location.

Circle 68 on reader service card



Drilling system has digital automation or N/C controls

What is said to be the first American structural drilling unit available with digital automation or N/C controls is available from Lerco, Inc. The drill units (400F and 600W) in combination put holes in structural steel faster than any other punch system. The system has the capability with full automation and memory to fabricate all rolled sections up through 14 in. by 730 lb/ft columns and W36 in. by 300 lb/ft beams. Designed for 700 lb/ft, the material handling systems are available with SCR powered roller conveyors, transfer tables, saw feed and storage tables, saw drop-off units and powered work skids. Lerco offers in-plant consultation and engineering service and provides layout drawings for systematizing structural fabricating.

Circle 69 on reader service card

Type "S" lever system of scales has been improved

The Type "S" lever system, which forms the heart of every Fairbanks Weighing Division heavy capacity truck, railroad track and livestock scale, has been redesigned and improved. Of special importance is the incorporation in the lever system of a removable bearing which makes it possible to replace the bearing without removing the fulcrum stand. There is no need to regrout and relevel the stand. Maintenance costs and downtime are thus kept to a minimum. Each Fairbanks heavy capacity model also features an exclusive vertical platform adjustment. The trunnion bolts are easily adjustable for simple leveling of the scale platform with the approach ramp. Adjustable trunnions eliminate the damaging forces of shock loads resulting from the scale platform being too high or too low in relation to the roadway.

Circle 70 on reader service card

Plastic tanks available for waste treatment systems

Injection-molded seamless plastic tanks are being produced for on-board waste treatment systems manufactured by Microphor, Inc. The plastic tanks are made in two sizes: 31 in. by 25 in. by 14 in. (model H-12), and 23 in. by 32 in. by 11 in. (H-8). Built for Microphor by Hascon Co., a division of Hercules Corp., the tanks feature increased durability and minimum maintenance.

Circle 71 on reader service card

NEW LITERATURE

RERAILING. A recent illustrated brochure from Hoesch America, Inc., fully describes how to handle a major derailment with Hoesch lightweight rerailing equipment. Advantages and features of the company's MFD rerailing equipment are detailed.

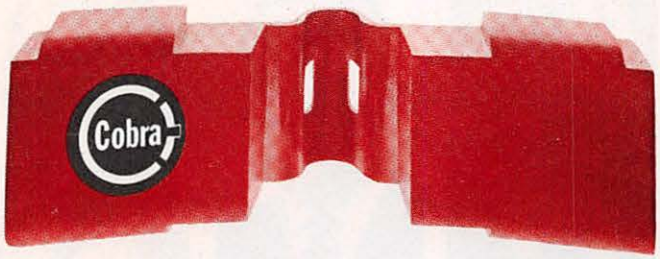
Circle 72 on reader service card

CONTAINER HANDLING. Illustrated data sheets describing a comprehensive line of rail-mounted, hydraulic container-lifting gantries and portal cranes especially designed for handling intermodal containers at rail terminals have been made available by Rehquate-Perl's M&F Division.

Circle 73 on reader service card

TRAIN POSITIONER. McDowell Wellman Engineering Co. has published a 14-page, four-color brochure on train positioner/car dumper systems used in conjunction with unit-train operations. The brochure details system unloading capacities as well as design and operating characteristics.

Circle 74 on reader service card



Red COBRA® Brake Shoes are not cast metal. They are made from a patented composition material that performs differently than metal: The heavy sparking and flaming usually associated with metal shoes during heavy braking does not occur with COBRA Shoes.

Extensive testing, both in the laboratory and then in the field, has proven the value of COBRA Shoes in greatly reducing fire hazards. These tests are pictorially and statistically documented and available for your review.

Red COBRA Shoes are your best fire insurance because of this proven performance.

If you suspect you need Red Shoes on your line, call our braking systems man. He'll give you the complete story on Red Shoe fire safety. Or write: Railroad Friction Products Corporation, Wilmerding, Pa. 15148. In Canada: COBRA Friction Products Ltd., Hamilton, Ontario L8N 3T5.

If your brake shoes are a fire hazard, you should see red.

Circle 18 on Reader Service Card

Carl V. Lyon
AAR

Frank H. Coyne
BN

Clifford G. Massoth
ICG

Minnie Dobes
LV

J. James Stallmann
P-S

Andrew Hvizd, Jr.
Kerite

People in the News

ASSOCIATION OF AMERICAN RAILROADS.—Carl V. Lyon, general solicitor, on Feb. 1 assumed duties as senior vice president, succeeding **Gregory S. Prince,** who has retired as executive vice president. **Philip F. Welsh,** senior general attorney, succeeds Mr. Lyon as general solicitor.

BURLINGTON NORTHERN.—Frank H. Coyne, vice president, finance, elected executive vice president-finance.

CAMBRIA & INDIANA—CONEMAUGH & BLACK LICK—PATAPSCO & BACK RIVERS—PHILADELPHIA, BETHLEHEM & NEW ENGLAND—SOUTH BUFFALO—STEELTON & HIGHSPIRE.—Robert O. Hancox named vice president-administration of these six subsidiary railroads serving **Bethlehem Steel Corp.** plants and installations. Mr. Hancox will continue to serve as secretary of the combined short-haul lines.

CANADIAN NATIONAL.—Jean G. Cormier has been appointed vice president of public relations, Montreal, effective March 1. Mr. Cormier is currently director of communications and public affairs, **Dominion Foundries & Steel Limited,** Hamilton, Ont.

CP RAIL.—C.P. Bird appointed general tie and lumber agent, Montreal, succeeding **D.H. Fenwick,** who retired Dec. 31 after 44 years with the Tie and Lumber Division.

CHICAGO & NORTH WESTERN.—Richard P. Hoffman, assistant division manager-administration, Iowa division, Boone, Iowa, appointed assistant division manager-transportation, Lake Shore division, Green Bay, Wis.

DETROIT, TOLEDO & IRONTON.—Robert C. Courtney, vice president-finance, elected assistant to the president and secretary.

Richard Guregian, director-administrative services, elected vice president-administration. **Walter S. Aaron, Jr.** elected vice president-accounting. Mr. Guregian and Mr. Aaron, formerly controller, **Western Railroad Assn.,** will also serve the **Ann Arbor.**

Malcolm C. Campbell appointed regional sales manager, Chicago, succeeding **Carl L. Froelich,** who retired Jan. 15, after 47 years of railroad service, the last 12 of which were with the DT&I and Ann Arbor.

GRAND TRUNK WESTERN.—William Glavin, chief engineer, promoted to general manager. **Robert P. Cornwell,** engineer design and construction, named chief engineer.

ILLINOIS CENTRAL GULF.—Clifford G. Massoth, director public relations and advertising, named director of corporate relations.

ILLINOIS TERMINAL.—M.A. Hartman appointed director-labor relations and personnel, St. Louis, succeeding **Leo M. Hall,** who retired Feb. 1 after more than 46 years with IT.

LEHIGH VALLEY.—Miss Minnie Dobes, controller, appointed assistant vice president-controller, Bethlehem, Pa.

Louis J. Trinchere, director of information services, appointed assistant vice president of management information services. He will evaluate, plan, and implement the company's overall computer data processing activities as part of a new internal support group involving planning and control.

Charles S. Haum, general claim agent, named assistant vice president-casualty prevention, a new position consolidating personal injury claims, freight claims, police, and medical services under casualty prevention.

Joseph J. Capetola, chief claim agent, Newark, N.J., promoted to general claim agent.

NORFOLK & WESTERN.—Wilford C. Stevens, Jr., superintendent, Muncie Division, Muncie, Ind., appointed superintendent, Detroit Terminal, succeeding **Robert C. Churchill III,** who was transferred to Fort Wayne. Mr. Churchill replaces **Jon L. Manetta,** who transferred to the Pocahontas Division, Bluefiled, W.Va., to succeed **Joseph C. Hillman,** who replaces Mr. Stevens at Muncie.

PENN CENTRAL.—Clifford B. Alban, assistant general manager-passenger service, appointed general manager-passenger service, succeeding **Robert F. Lawson,** who has joined **Amtrak** as chief engineering officer.

RICHMOND, FREDERICKSBURG & POTOMAC.—Edward A. Wallace, assistant corporate secretary, has been elected corporate secretary and assistant treasurer. He will also continue to serve as manager insurance. **Eugene A. Byrd,** assistant treasurer, elected treasurer. **Mrs. Carolyn K. Fleming,** staff assistant in the president's office, elected assistant corporate secretary.

SEABOARD COAST LINE—LOUISVILLE & NASHVILLE.—J.L. Huff appointed district manager freight sales, Fort Lauderdale, Fla. **G.E. Hinnant** appointed district manager port sales, Miami. **F.G. Ballance** named sales representative, Raleigh, N.C., succeeding **T.M. Gunter,** who retired Jan. 31, after more than 38 years of service.

SOUTHERN PACIFIC.—John J. Corrigan, Thormund A. Miller, and **Herbert A. Waterman** named general solicitors. **Arnold Weber** appointed senior general attorney, and **Robert S. Bogason,** general attorney. All will have headquarters at San Francisco.

WESTERN MARYLAND.—Robert E. Farrell appointed district sales manager, San Francisco, succeeding **L.E. Cox,** resigned.

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Karl F. Hoenecke
FS&S

David E. Pergrin
MCA Engineering

president, elected to assume the additional duties of chief executive officer, effective Jan. 1. **Alfred E. Perlman** remains chairman of the board.

SUPPLIERS

J. James Stallmann, director of advertising, **Pullman-Standard division of Pullman Incorporated,** has been appointed assistant vice president and director of advertising. **John W. Carrig** has been named director of planning, and **Robert F. Phalen,** director of planning-freight.

Andrew Hvizd, Jr., chief engineer, **Kerite Co.,** has been named vice president-engineering.

Karl F. Hoenecke has been elected chairman of the board, president and chief executive officer, **Federal Sign & Signal Corp.,** Chicago. He succeeds **Robert T. Gilchrist** as chairman of the board, and **Peter J. Rempe** as president. Mr. Hoenecke was formerly president, MGD Graphic Systems, Rockwell International Corp.

Ed Haile, president of **MCA Engineering Corp.,** Baltimore, Md., has announced expansion of the Transportation Division with new and expanded headquarters in Media, Pa. MCA's rail engineering ability is being utilized on rail network studies in New England and Philadelphia as well as South America, where plans are being formulated to move ore from Bolivian mines to Chilean ports. **David E. Pergrin,** formerly with **Penn Central** in the maintenance, industrial engineering, transportation and operations planning departments, is vice president and chief, Rail Transportation Division. **Dale N. Worfel** is assistant chief of the division and a vice president of MCA. Mr. Worfel was recently a vice president, **Osmose Co.,** Buffalo, prior to which he spent 16 years in engineering and design with the **Pennsylvania. Mark E. Love** is director of planning and, along with Messrs. Pergrin and Worfel, is an Associate Member of MCA. Mr. Love had 10 years' experience with the **Santa Fe, New York Central** and **Penn Central** in the traffic, operating and operations planning departments. **James A. Connelly** is director of transport, Rail Transportation Division. Mr. Connelly has 24 years of railroad service in transportation and operations planning with **Penn Central** and **Jersey Central** and most recently **Amtrak.** He acquired experience in the development of yards, terminals and mainline facilities as well as budgeting and railroad operational expense

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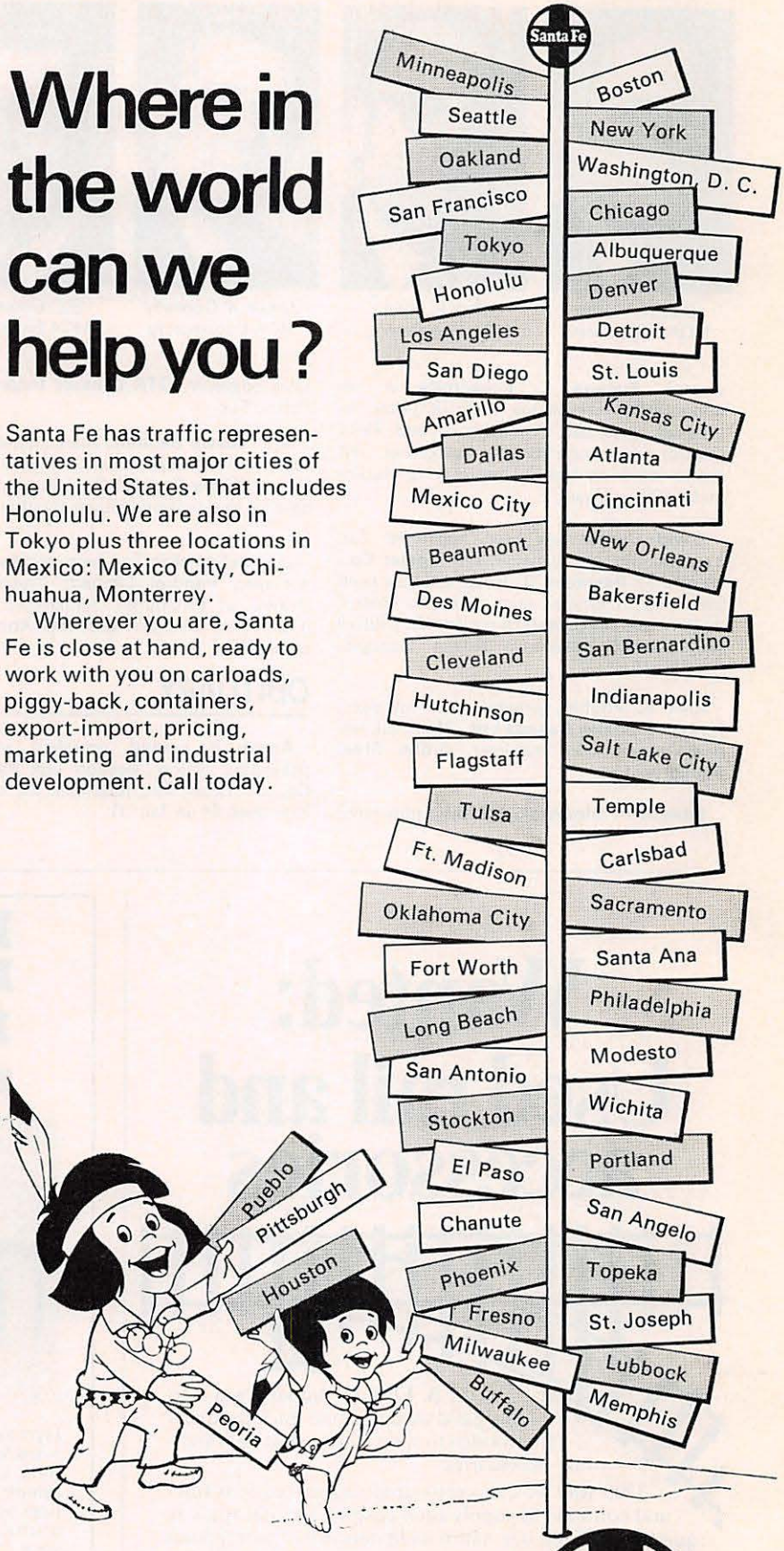

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control. **Eugene L. Eckenrode** is administrative coordinator with 18 years experience with the Pennsylvania and Penn Central in transportation, marketing and recent work on branch line costing studies and traffic analyses.

David Clutter has been appointed San Francisco district manager, **L.B. Foster Co.**, succeeding **Raymond D. Noel**, who has been promoted to general sales manager, central western and northwestern region. Mr. Clutter was formerly assistant district manager, Seattle office.

Alex F. Philbin, general sales manager, **Hawker Siddeley Canada Ltd.**, Montreal, has been named sales manager, **Griffin Steel Foundries Ltd.**

Edward P. Siewenski has been appointed sales engineer, **GTE Lenkurt Incorporated**, Dallas, Tex.

Mrs. Jessie Senneff, sales administrative supervisor, transportation products division, **United States Gypsum Co.**, Chicago, became head of the divisions billing function on Jan. 1.

Jon Schumaker has been appointed sales manager, **Pandrol Limited**, United States Branch, at Pittsburgh. Schumaker was formerly sales manager, **Unit Rail Anchor**, Pittsburgh.

OBITUARY

Austin P. Leland, president and tariff publishing officer, **Station List Publishing Co.**, St. Louis, Mo., died Jan. 24. He would have been 68 on Jan. 31.

INDUSTRIAL TRAFFIC

Thomas R. Lynch, director of transportation, **Fibre Box Association**, Chicago, retired Jan. 15, after a 46-year career in the fields of railroad traffic and transportation.

William J. Gallagher, supervisor of rates and routes, **Combustion Engineering** power systems, has been appointed manager, corporate rate administration. He will be responsible for the development, dissemination and interpretation of transportation rate policies, procedures and negotiations for the corporation.

Russell W. Talbot has been appointed executive director, **National Association of Shippers' Agents, Inc.**, Suite 502, 1730 M Street, N.W., Washington, D.C. 20036.

Richard C. Bergmann, assistant traffic manager, **S.C. Johnson & Son, Inc.**, Racine, Wis., has been named general traffic manager, to succeed **Charles A. Hoppe**, who retired Feb. 1 after 28 years of service.

Robert B. Erikson has been appointed marketing logistics coordinator, **St. Joe Minerals Corp.**, reporting to **Leonard J. Smith**, traffic manager.

Nat Welch, former executive director, Atlanta Community Relations Commission, has been named executive vice president, **Atlanta Freight Bureau.**

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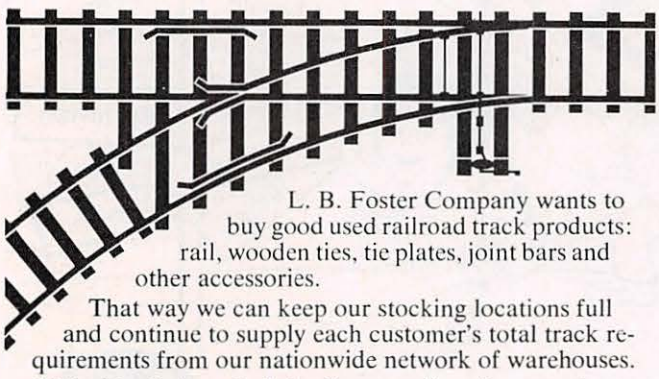

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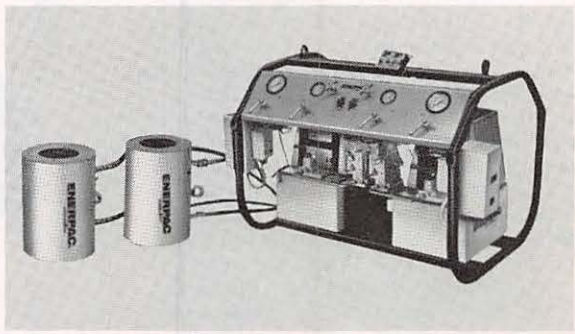

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Market Outlook

CARLOADINGS

Loadings of revenue freight in the week ended Feb. 8 totaled 436,262 cars, according to the Association of American Railroads. This was a decrease of 22,590 cars, or 4.9% compared with the previous week, and a decrease of 83,959 cars, or 16.1%, compared with the corresponding week last year. Ton-miles generated by carloadings in the week ended Feb. 8 are estimated at 14.6 billion, a decrease of 14.1% below the corresponding week of 1974.

REVENUE FREIGHT CARLOADINGS

Commodity	Feb. 8 week	Feb. 1 week
Grain	24,429	26,284
Farm products	8,071	8,005
Metallic ores	25,650	25,996
Coal	85,622	95,207
Crushed stone, gravel & sand	18,341	19,248
Nonmetallic minerals	13,953	14,808
Grain mill products	19,512	19,278
Food and kindred products	20,136	21,928
Primary forest products	19,626	21,316
Lumber & wood products (except furniture)	10,579	11,651
Pulp, paper & allied products	19,516	20,050
Chemicals & allied products	27,158	26,811
Petroleum products	7,643	7,935
Stone, clay & glass products	14,799	15,562
Coke	8,622	8,583
Metals & products	23,138	24,881
Motor vehicles & equipment	16,031	16,217
Waste & scrap materials	14,840	14,527
Forwarder & shipper assn. traffic	8,561	8,677
All other carloads	49,664	51,318
LCL traffic	371	390
Total cars loaded	**436,262**	**458,672**
Cumulative total, 6 weeks	1974	1974
	2,601,264	**2,974,929**
Estimated revenue ton-miles (billions) 6 weeks	86.7	96.2

PIGGYBACK LOADINGS

U.S. piggyback loadings for the week ended Feb. 1 totaled 23,864 cars (29.5% below the corresponding week last year) and 41,911 trailers or containers (down 29.2% from 1974). Cumulative volume for the first five weeks of 1975 is 105,985 cars (off 28.8% from last year) and 184,437 trailers or containers (down 28.4% from 1974).

IN CANADA

Canadian railway revenue freight loaded in the seven-day period ended Jan. 21 totaled 4.2 million tons (up 16.4% from 1974). Cars loaded increased 6.9% to 73,091. Cumulative loadings for 1975 were up to 11.97 million tons, up 11.6% from 1974.

• *Norfolk & Western.*—Construction of a microwave radio system across NW's 14-state service area is scheduled to begin around May 1. Costing over $11 million, the system is part of a $13.5-million communication modernization program which began in 1973. Designed to accommodate NW's communications as far ahead as 1995, the 2,000-mile microwave system will be in operation by the end of the year between corporate headquarters in Roanoke, Va., and regional offices in Cleveland. That will be followed by extensions to St. Louis, Chicago, Buffalo, Kansas City, Pittsburgh and Norfolk. A total of 91 microwave stations will be built by Collins Radio Group of Rockwell International, Inc. To expedite work and minimize costs, NW will share several sites and radio channels with the Chessie System and Illinois Central Gulf.

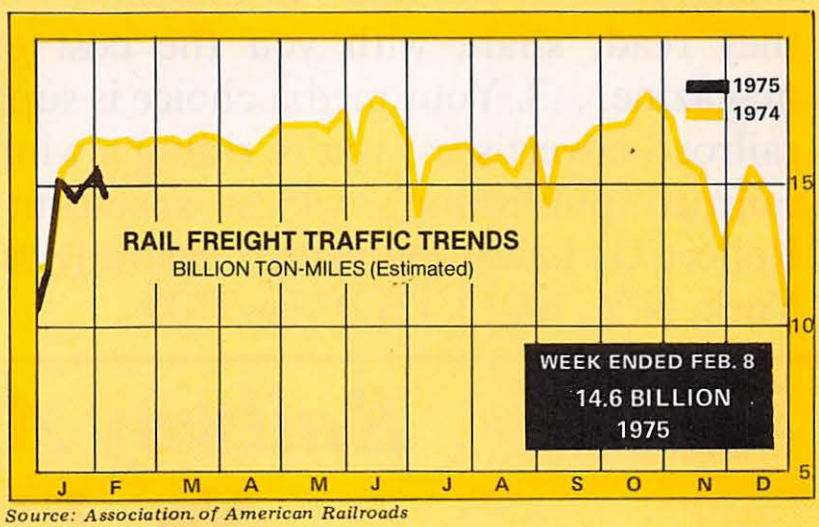
• *Raritan River.*—Is taking delivery of 100 general purpose, 50-ton box cars built by Southern Iron & Equipment and acquired through a U.S. Railway Equipment lease.

• *Rock Island.*—Leased 150 100-ton covered hopper cars valued at $3.6 million from U.S. Railway Equipment.

• *Southeastern Pennsylvania Transportation Authority.*—Ordered 70 m-u Silverliner IV commuter cars from General Electric, for service on Reading lines, at a total cost of $51 million. (See page 8.)

• *Yugoslavia Railways.*—Placed an order with the RF Communications Division of Harris Corp., Rochester, N.Y., for a $3.5-million radio communications system that will include 1,000-watt transmitters, radio receivers, teletype equipment, and maintenance facilities.

• *Massachusetts Bay Transportation Authority.*—A grant for $13,942,800 has been made to MBTA by the Urban Mass Transportation Administration for upgrading rail segments of the Boston regional transit system. Rapid transit turnback facilities on MBTA's Red Line at Harvard Square and relocation of the Harvard Square substation are among the improvements being made. The grant is the third for a series of plant modernization projects designed to upgrade MBTA's physical plant.



Source: Association of American Railroads

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Interchange

The tinkerers

By KENNETH ELLSWORTH
Mechanical Editor

Nobody wants to freeze progress. Yet, a surprising number of the free world's leaders in the sciences, professions, industry and government are beginning to wonder aloud whether, perhaps, we ought to scrutinize more closely the endless tinkering with a bewildering array of technologies.

How much is essential and how much is gimmick? The irate voice of the consumer is being heard on high. Part of our current economic problem may be the over-sophistication and/or adulteration of products with cost add-ons. At the consumer level, it seems we are constantly being told that the really great product we bought yesterday doesn't measure up to half of whatever it is of the one we're shown today.

Could we find ourselves with such an array of super-tinkered goodies as to wind up like the jackass placed between two bales of hay? He starved to death trying to make up his mind which bale he should tackle first.

Public transportation planners seem particularly susceptible to the idea that new is necessarily better. When the Bay Area opted for conventional rail transit years ago, Los Angeles was tinkering with new technologies. Now the Bay Area has BART; Los Angeles is still trying to make up its mind.

Our forefathers didn't turn up their noses at progress, and they thought very highly of free enterprise. As, indeed, we do today. But they were very cautious about throwing things away. Now, we are told this is a virtue!

The railroad industry, which has had to "make do" for too long, never forgot the old virtues. Railroads must ever be concerned with the basics of their transportation operations and their obligations to stockholders, employees, the public and regulatory bodies. Design and engineering improvements are sought, naturally, for cars and locomotives, as examples. But chief mechanical officers must carefully weigh each option in such terms as dollar return, fuel savings, lower maintenance costs, comfort and safety for employee and public. And railroad suppliers know they have to be on solid ground when they approach a railroad customer with a new or improved product.

Those who fail to apply the criteria of common sense to the new and the different—who tinker for the sake of tinkering, who seek change for change's sake—run the risk of making asses of themselves.

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75 YEARS AGO IN

(Feb. 16 and Feb. 23, 1900)

Persia, now more familiar with the camel than the locomotive, is to have a trunk line railway, extending from its northern border to the Arabian Sea, a distance of some 1,300 miles, with a branch to Teheran, the capital. The project is not to be credited to Persian enterprise, but to the ambition of Russia, which by its construction will connect the Black and Caspian seas with the gulf, and not only touch the most important commercial and strategical points in the interior, but give the czar an outlet to the Southern sea over which passes the commerce of India and the Orient. The Persian gulf might be reached by a much shorter line along the Turkish border, but this would help Turkey, and would also benefit England, which has claims on the Persian gulf ports for loans. The line, on which construction is stated to have already begun, will extend from Julfa, on the Russian-Persian border, southeasterly to Bandar Abbas, in latitude 27, from 100 to 200 miles east of the Turkish boundary. When Russia carries out her probable intention of conquering Persia, her vast empire will stretch from the Arctic Ocean, in latitude 78, south to latitude 25, a vast sweep of 53 degrees, from the polar sea to the tropics. There is work for the railway builder in this tremendous territory.

***

The Pullman Palace Car Company is now building for the Lehigh Valley Railroad, six new passenger coaches, which, in interior and exterior finish and arrangement, the company expects will eclipse anything heretofore built in this or any other country in the way of passenger cars used on regular trains for the accommodation of the public. These new cars will be run in the Black Diamond Express trains between New York and Buffalo, and will replace the coaches now used in these trains, themselves models of comfort and luxury, but considered by the company to be not good enough for the Black Diamond Express, and which it has been considered necessary to replace. Each car is provided with a large and elegantly appointed smoking room; also with two saloons—one for men and one for women. A luxurious retiring room is connected with the saloon for women. The seating capacity of each car is 69 people, and the weight about 50 tons. The six coaches will be exactly alike in every respect. The length of the car is 70 feet, and the width a fraction over 10 feet. The roof will be of the Empire style of construction, and the inside finished in solid mahogany. The ceiling is finished in 3-ply white wood, empire deck, with oval deck sash. The decoration of the ceiling is in gold. The windows of the car are double sash, with plate glass, supplied with Pantasote shades, silk facing, fixed with Acme window shade fixtures. The seats in the body of the car are covered with plush of the best quality, and have mahogany ends. In the smoking room the seats are covered with enameled green leather. The heating of the car is accomplished by the use of hot water circulation.

***

Recorder Edward L. Cook of Madison, N.J., is trying to restrain the running of freight trains on the Morris & Essex division of the Delaware Lackawanna & Western on Sundays and has threatened to arrest the crews of such trains.

***

The Burlington is equipping its passenger locomotives with the electric headlight. Several of the engines running between Burlington and Chicago now have the electric headlights, and within the next few weeks others will be equipped with them. Incandescent lights are provided for the cab and tender.

***

A bill has been presented before the Iowa Legislature to compel railroad companies to put in either subways or surface crossings in order that cattle may pass from one field to another on opposite sides of the track.

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Viewpoint

It's easy to cut M/W—but is it wise?

Right now railroads have considerably less cash in their tills than they had a year or even three months ago. A prudent respect for the laws of economics dictates that they make temporary cutbacks somewhere, especially where expenditures must be met from the thinning stream of cash flow. But where to cut?

In a "Memo to Management" which appeares in the January 1975 issue of Railway Track & Structures, Editor Merwin H. Dick (who is also engineering editor of Railway Age), suggests that the last place such cuts should be made is in track maintenance, though in fact, says Mr. Dick, this is often the first place to feel the axe—in good times as well as bad—one reason being that "the money allotted for ties and rails can, and often is, regarded as a handy means of controlling expenses if a need should develop to give net income a shot in the arm."

Mr. Dick offers this advice, out of his own 45 years of observing and chronicling the M/W scene:

> Rail and tie programs, carefully worked out by your engineering people, cannot be tampered with year after year with impunity. These programs are based on need and when cut-backs are ordered, the properties are going to suffer. The cut-backs may have a beneficial effect on net earnings, but in our opinion the benefits are temporary.
>
> If undermaintenance becomes chronic the "savings" thereby effected turn out to have a big price tag attached to them. This price tag includes the expenses that accrue from slow orders, damage to lading due to rough track, derailments and all the costs resulting from them, overtime for train crews and the increased cost of equipment repairs required by wear and damage resulting from movement over rough track. One estimate is that one-third the cost of equipment maintenance can be attributed to this cause.
>
> If the neglect is serious enough and lasts long enough the track condition can reach a point where efforts of the track forces become bogged down in a struggle to keep the tracks up to a minimal "standard," able to carry trains only at a greatly reduced speed.
>
> Speaking before the Roadmaster's Association last October, Ed English, Federal Railroad Administration regional engineer at Chicago, called this "the point of no return." Indeed, there can be no "return" from this state except at tremendous cost. At this point the question may be raised whether the interests of the stockholders have been served by the "savings" made through undermaintenance.

A DRAIN ON PROFITS—OR A CONTRIBUTION?

At the outset of his "Memo to Management," Mr. Dick said he hoped to demonstrate that good track maintenance "rather than being a drain on railroad profits, can actually contribute to railroad profitability" and that "this contribution can only be achieved through a managerial policy that regards money spent to produce strong, well-maintained track as not only a necessary business expense, in good years and bad, but also as a sound investment which can produce substantial returns on the amount invested."

Such a policy was pursued by the late Champion McDowell Davis on the Attlantic Coast Line; it didn't make everybody—especially the Wall Street dividend-watchers—happy. In 1957, the year he retired as president of ACL, Mr. Davis was sharply criticized for having maintenance ratios that were five percentage points above the average for railroads. His reply: "I do not recall that anyone has suggested that Coast Line retard its traffic and revenue growth so as to conform to an 'average'." Mr. Davis died just a few weeks ago at the age of 95. It is not on record that he ever regretted having "over-maintained" his property.

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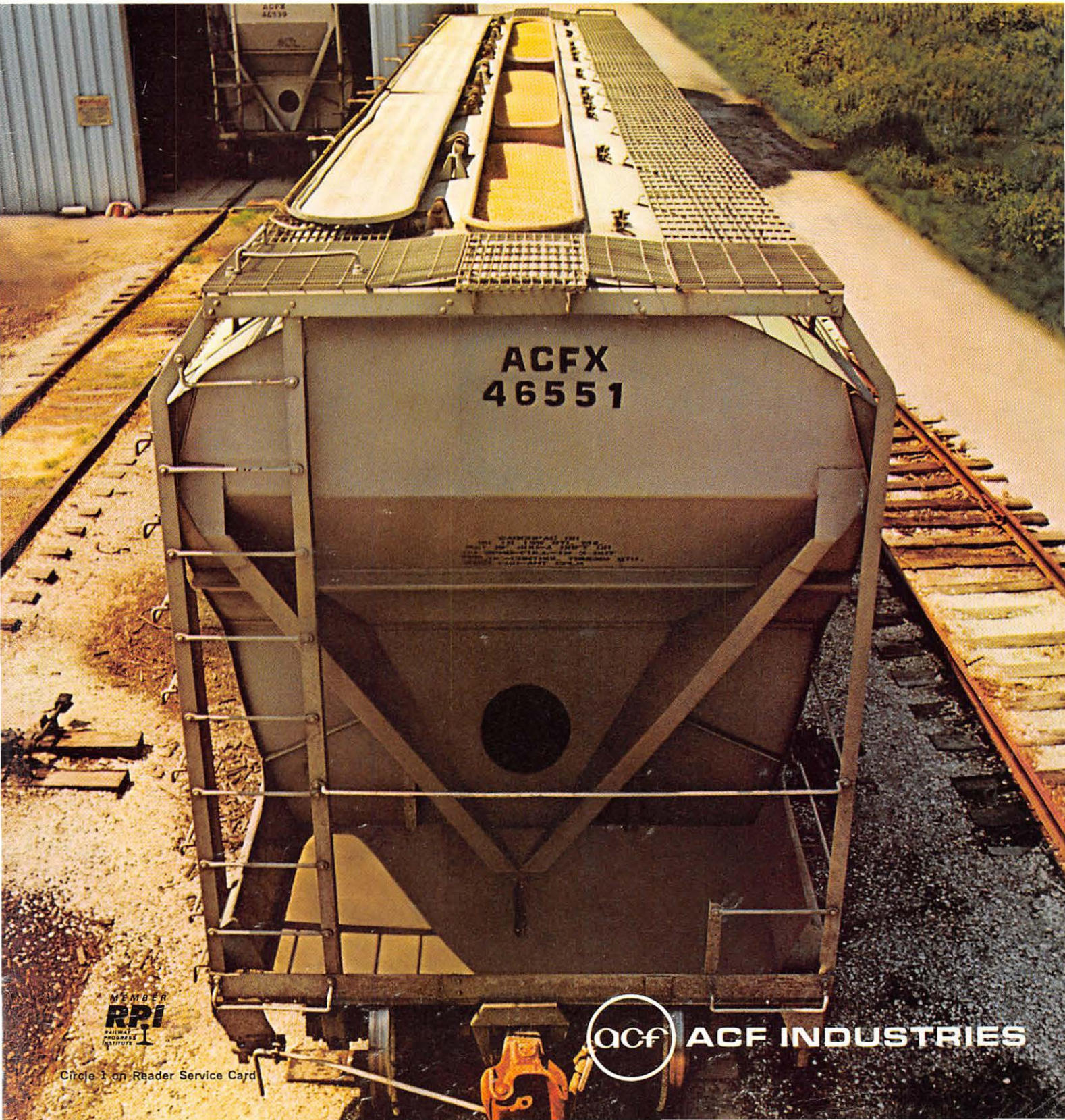

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